

NAVAL AVIATION

NEWS

In this Issue:

Sailplane Flying...

*and its soaring popularity
with Naval Aviators*

Pat Rine Test Range
A-4B 7-22
A-7E 7-29

51st Year of Publication

APRIL 1970

NavAir No. 00-75R-3





AROUND-THE-CLOCK

The roaring engines are silent. The whirling blades are folded back. Pilots have left the flight deck and mechanics are at work. ASW is a continuous operation. Long hours of careful maintenance and repair are devoted to each helicopter before its mission. For every contact made beneath the prop-washed surface, a large part of the credit goes to the plane captain and to those mechanics who stay behind.

NAVAL AVIATION NEWS

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Deputy Chief of Naval Operations (Air)

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Assistant Deputy Chief of Naval Operations (Air)

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COVERS

Working on this month's lead feature at the Air Force Academy, JOC James Johnston photographed a Patuxent River Soaring Team member's glider on tow from the Black Forest sailplane field in Colorado Springs. On the back cover, a QF-9J Cougar is seen through an F-9's tailpipe at Point Mugu, Calif. The QF-9J is a NOLO (pp. 16-17).

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NAVAL AVIATION NEWS

CVAN-69 to be Named for Ike Keel Laying Scheduled for Spring

President Nixon has announced the third nuclear powered attack aircraft carrier will be named in honor of the late President Dwight D. Eisenhower.

The keel laying is scheduled for this month during the 15th anniversary of the Navy's nuclear propulsion program. USS *Nautilus*, the world's first nuclear powered ship, got under way in January 1955.

CVAN-69 was authorized under the fiscal year 1970 shipbuilding and conversion program, with Congressional appropriations for construction set at \$510 million.

Dwight D. Eisenhower—sister ship to *Nimitz* (CVAN-68), now under construction—will have an overall length of 1,092 feet and will displace about 94,400 tons. Both ships will be powered by a two-reactor plant developed by the Atomic Energy Commission.

CVAN-69 will be equipped with the Naval Tactical Data System, the Automatic Carrier Landing System and an Integrated Operational Intelligence Center. Automation in main propulsion, ordnance handling and ship control will be included wherever safety can be improved.

Flight Students in Fleet Units Get Feel for Operations Before School

Five prospective naval flight students waiting training at NAS Pensacola have been given an inside look at an operating squadron's procedures be-

fore beginning flight training.

Because there have been so many applicants for flight training, a backlog of officers built up at the school; VF-101 volunteered to give some of them a look at life in a *Phantom* squadron.

Ensigns Russ Dickson, Archie Turner, John Scrapper, Ray Starkey and Paul Boenish spent two months with the *Grim Reapers* at NAS Key West, Fla., where they had at least three flights in the F-4 *Phantom* and the TA-4F *Skyhawk*.

The officers were rotated through familiarization billets in operations administration and maintenance before returning to Pensacola.

Seventh Fleet Command Change VAdm. Weisner For VAdm. Bringle

Vice Admiral Maurice F. Weisner relieved Vice Admiral William F. Bringle as Commander Seventh Fleet, March 10, at the U. S. Naval Base, Yokosuka, Japan.

Admiral John J. Hyland, Commander-in-Chief, U. S. Pacific Fleet, was the senior naval officer at the ceremony. He was Seventh Fleet commander immediately before Adm. Bringle.

For the past six months Adm. Weisner has commanded the Seventh Fleet Attack Carrier Striking Force.

Adm. Bringle, Seventh Fleet commander since November 1967, now is Commander, Naval Air Force, Pacific, headquartered at NAS North Island. He relieved Vice Admiral Allen M. Shinn, who retired April 1.



NFO Command Eligibility OK On Selection Plane Equal to Pilot

The President has signed into law a bill to extend to Naval Flight Officers the same sea and shore aviation command eligibility afforded Naval Aviators. Required changes in Naval Regulations are in preparation at this writing.

Under Public Law 91-198, NFO's will be eligible to command naval aviation schools, naval air stations or naval aviation units organized for tactical flight purposes. Marine NFO's will be eligible for similar Marine Corps commands.

The FY '71 aviation command screening board, convening in November 1970, will implement the broader NFO command opportunity. The policy will be to consider all aviator and NFO's for command selection within their type aircraft community on a best qualified basis.

Although NFO's theoretically have been eligible to command aircraft carriers, it was heretofore an unlikely possibility because they were not eligible for tactical commands such as squadrons and air wings, which are considered prerequisites in career patterns aimed at carrier command.

NFO aviation command eligibility represents a major milestone toward achieving a broader based professional naval aviation force.

Fleet Air 'E' Awards Announced Top Carriers and Squadrons are Cited

Battle Efficiency award winners in the CVA, CVS and squadron classes have been announced in both the Atlantic and Pacific Fleets.

In the Atlantic, USS *Forrestal* (CVA-59) and USS *Wasp* (CVS-18) were named overall winners in their respective classes. USS *Hancock* (CVA-19) and USS *Hornet* (CVS-12) won in the Pacific.

Forrestal is currently deployed with the Sixth Fleet in the Mediterranean and *Wasp* is operating out of her homeport, Quonset Point, R.I. *Hancock*, recently returned from her fifth deployment to Vietnam, is scheduled for overhaul at the San Francisco Naval Shipyard (pp. 30-31). *Hornet* was deactivated last month in Long Beach.

Squadrons named as winners of the Battle E are:

Pacific: VF-142 (F-4); VF-191 (F-8); VA-192 (A-4); VA-165 (A-6); VA-97 (A-7); VAH-110 (KA-3); VAQ-134 (EKA-3); VP-48; VS-33; VAW-116; and HS-4.

Atlantic: VF-33 (F-4); VA-81 (A-4); VA-105 (A-7); VA-75 (A-6); RVAH-1 (A-5); VS-32; HS-5; VP-10; VP-24; VP-16; and VAW-123 (E-2).

CVA-class departmental awards went to:

Pacific: USS *Ranger* (CVA-61) for operations; USS *Coral Sea* (CVA-43) for communications and air; and USS *Constellation* (CVA-64) for weapons. Awards were not made in the CVA category for engineering and ASW.

Atlantic: USS *Forrestal* (CVA-59) for operations and weapons; USS *Saratoga* (CVA-60) for air; USS *Independence* (CVA-61) for engineering and medical; USS *America* (CVA-66) for supply; and USS *John F. Kennedy* (CVA-67) for aircraft intermediate maintenance.

CVS-class awards in the Pacific were presented to *Hornet* for operations and communications and USS *Bennington* (CVS-20) for air. There were no CVS awards for engineering or weapons.

Atlantic CVS-class awards went to USS *Shangri-La* (CVS-38) for com-



CNO ADM T. H. MOORER and the all-Navy Apollo 12 crew, pose in the Pentagon after ceremonies in which the Admiral awarded Distinguished Service Medals to the astronauts and they presented him with his personal flag which they took to the moon on their November mission. Additionally, mission commander, Capt. Charles Conrad (second from left), received the Navy Command Insignia and Capt. Alan Bean (right) was presented his Navy Astronaut Wings. Captains Conrad and Richard Gordon previously had received their wings for earlier flights. The presentation of the Command-at-Sea Insignia to astronaut Conrad is a precedent. It normally is worn by commanding officers of ships and squadrons. But it was the astronauts who engineered the surprise of the ceremony when they revealed they had included Admiral Moorer's flag with the material taken to the moon's Ocean of Storms. With an inscription noting the lunar journey, the flag was presented to the CNO.

munications and to USS *Intrepid* (CVS-11) for engineering. *Wasp* and CVSG-54 won the Atlantic ASW "A" award.

Pax River Gets New Building Facility Houses Test Instruments

Ribbon-cutting ceremonies marked the official opening of the new Chesapeake Test Range building at the Naval Air Test Center, Patuxent River, as Rear Admiral H. L. Miller, test center commander, opened the modern, air-conditioned facility for use by members of the Theodolite and Radar Range Branch of the test center's Technical Support Division.

The new facility will house test instruments used in the evaluation of Navy aircraft and components, including search and acquisition radars, a parallax computing system, a radar-telemetry tie-in, central cinetheodolite control equipment and a cinetheodolite data digitizer system.

Data gathered by instrumentation

radars, cinetheodolites and electronic signal sources will be used in the evaluation of weapons systems components for service use, flight test instrumentation systems, air navigational traffic control communications and countermeasures devices, and air pilot training.

In addition to the instruments housed in the new Chesapeake Test Range Facility, the Theodolite and Radar Range Branch operates five remote theodolite stations.

Thailand Orders 16 Broncos Will Serve in Counter-Insurgency

The government of Thailand has ordered 16 *Broncos* from North American Rockwell. The twin-engine, turbo-prop aircraft will be used for counter-insurgency missions. They have the same basic configuration and avionics equipment as the OV-10's used by U.S. forces in Southeast Asia.

First delivery to the Royal Thai Air Force is scheduled for late 1970.



GRAMPAW PETTIBONE

Dilbert's Helper

The US-2A, utility version of the *Tracker*, was taxiing to the runway for takeoff from a mid-continent naval air station where the lieutenant pilot and his ADR1 copilot had stopped for fuel on a cross-country ferry flight. A sweeper was noted parked just off the right edge of the taxiway. Several other S-2's had gone by, each steering to the left of center line to avoid the truck. The US-2 continued blindly ahead until the right wing tip struck the left rear of the sweeper, inflicting moderate damage to the S-2 wing. The copilot crewman made no comment at all to the pilot regarding the close proximity of the sweeper.

Three days later the same crewman departed a mid-continent Air Force base in the left (copilot) seat of a UH-34J *Seahorse*, a different lieutenant in command. About 35 minutes into the flight, the petty officer saw the en route chart fall to the deck near the rudder pedals. He had previously placed this map between his thigh and the seat to hold it out of the way. In order to retrieve the chart, he uncoupled his lap belt, scooted forward

on the seat and reached down and picked it up. As he repositioned himself in the seat, the helicopter's engine quit.

He then noted his lap belt "D" ring had fallen over the fuel shut-off switch and that the switch was in the off position. He immediately turned the switch on and placed the mixture



control to rich, but it was too late. The bird was flared for auto-rotative landing by the pilot. It struck the uneven ground, bounced into a sand dune, and then toppled backwards and onto its side.

Not being strapped in and without his protective helmet, the petty officer was somewhat battered. He wasn't sure how to leave the helo and was assisted by the pilot who, though also without his helmet, was uninjured.

As they cleared the crippled bird, it caught fire and rapidly burned to the ground. The stranded crew walked to a nearby highway and hitched a ride into town.



Grampaw Pettibone says:

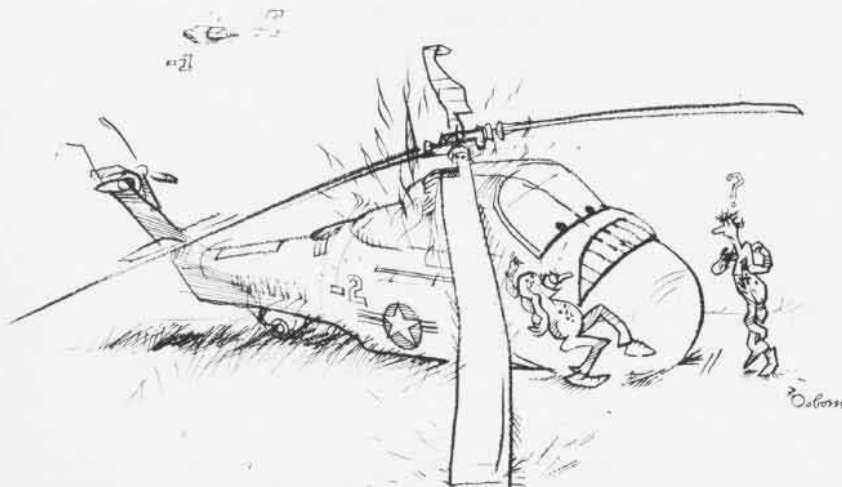
Sufferin' catfish! and shades of Walter Mitty! I thot I'd heard 'em all. Methinks this crewman should be taken off flight skins, toot sweet. Seems too much to be all just coincidence. Pilots have enough trouble without that little guy with the black cloud followin' 'em around.

Better to have no one at all in the other seat than someone you must depend upon and can't. Is it really necessary to dispense with a fully qualified copilot in these aircraft just to get them moved from one place to another?

The Leans

Boilerplate 106, an F-4B, was launched at 2100 one dark and gloomy night from the deck of a CVA for a radar air intercept training flight. When they completed their mission, the pilot, a lieutenant junior grade, and his RIO, an experienced lieutenant, marshaled and commenced their approach routinely in clear skies above a low overcast.

CCA instructed them to intercept the 12-mile arc of the ship's TACAN and arc to the final approach bearing, which they did, maintaining 1,500-foot altitude to stay above the dense cloud deck. On final, the *Phantom* de-



scended into the clouds, and the pilot immediately began to be affected by vertigo. As customary, the RIO assisted the pilot by providing a running commentary on attitude, airspeed and altitude. This helped a little, and CCA instructed them to "go dirty" at six miles. By the time the aircraft was stabilized on SPN-10 (final control), the pilot really had it bad. The *Phantom* lined up well but was low and fast all the way at 150 to 152 knots. On the meatball, the pilot's vertigo dissipated, but he was unable, despite the LSO's attempts to help, to get back on glide slope and was waved off at 1/8 mile.

His case of vertigo returned immediately and was made all the more severe by flying in and out of the bottom of the thick stratus overcast. The sensation was of rolling to the left, and constant attention and concentration were required to fight the instinct to roll the aircraft to the right. Boilerplate 106 struggled through the bolter pattern in this condition. CCA vectored him poorly which, along with his "leans" to port, put him to the left of centerline. After making a substantial heading correction, what powers of concentration the pilot could muster were devoted to the meatball.

The lieutenant, sufficiently concerned by his pilot's condition, was "glued to the instruments" and offered no more commentary. Seeing a high ball, the JG took off power and lowered his left wing to realign with the centerline. The airplane decelerated

rapidly and, seconds before it reached the deck, descended through glidepath. Sink rate was so excessive that in spite of military power, then afterburner, the main landing gear, stabilator tips and left wing tip struck the ramp and deck. The damaged tailhook missed all wires and the *Phantom* staggered into the air, nose high and left wing down.

The pilot, his vertigo suddenly completely gone, levelled his damaged heavy left wing and tried unsuccessfully to raise the landing gear. A gear-down bingo to the nearest shore air station was computed as the wounded craft headed for the beach.

Some confusion regarding TACAN channels delayed rendezvous with an airborne tanker while en route ashore, so an emergency low-fuel state was declared with the tower. Approach control vectored the flight for a dog-leg approach and, even though he had a normal landing gear down indication in the cockpit, the pilot executed emergency gear extension procedures. The SAR helo and crash crew were standing by.

Just prior to a slightly fast touch-down, the pilot added power to ease it on and landed 1,000 feet down the long runway.

He then brought the throttles back to idle, and the aircraft rocked forward in a level attitude per a normal landing. Then the left wing dropped and a bright flash was observed as the *Phantom* swerved left. Unable to control the swerve with full right

rudder and stick, he yelled to his RIO to get out and initiated command ejection with the alternate handle.

The Martin Baker system duly deposited both men, unhurt, beside the runway, two hours, eight minutes and three seconds after takeoff. The SAR helo gave them a lift to the dispensary.

Their *Phantom* left the runway after 1,000 feet of travel, crossed an arresting gear chain and continued another 1,000 feet diagonally across a wide dirt and grass area. The nose gear collapsed as it came to rest 120 feet from a C-119 which was taxiing sedately to its line area. The small fire was extinguished immediately by the crash crew.

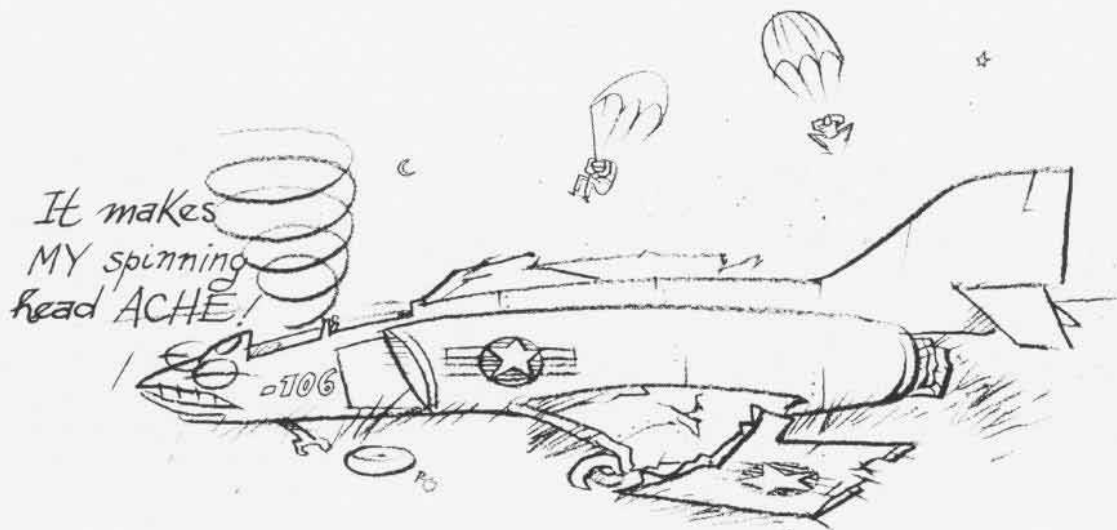


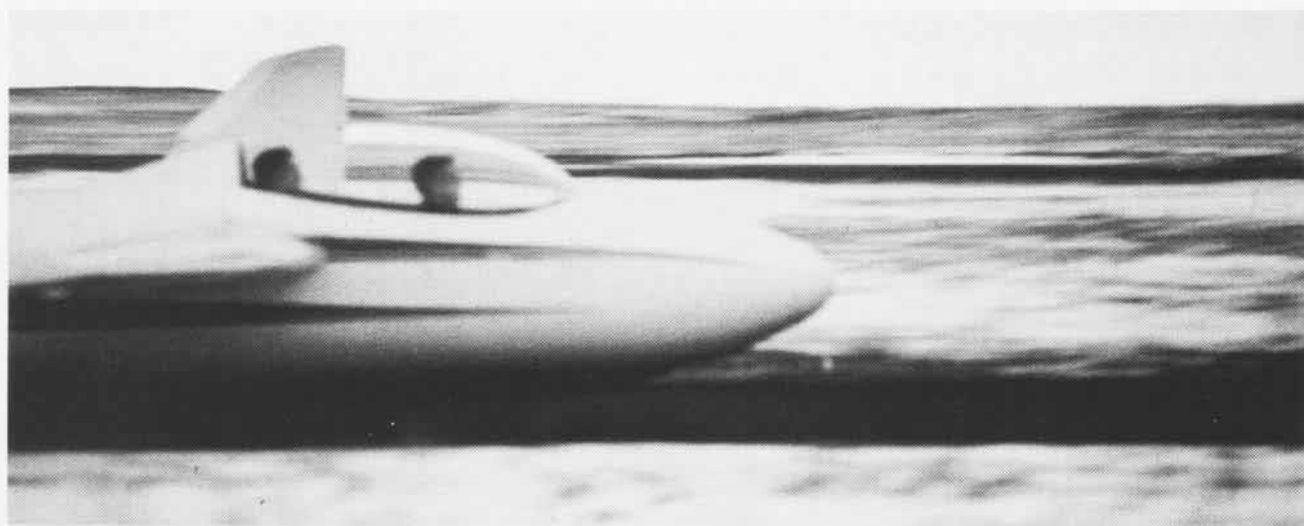
Grampaw Pettibone says:

Whew! I'm sure glad that un's over. That was a mighty rough night. This young, above average aviator, with a history of smooth, steady night approaches, temporarily got in over his head. Even the best of us can become oversaturated, 'specially at night behind that ship. He needed all the help he could get and didn't get it. CCA didn't get him lined up right. The LSO let him get too far without waving him off. The wave-off lights flashed only 1 1/8 seconds before impact. Even his RIO went silent when things got really tough.

Why in heck didn't this pilot let someone know he was having trouble. Vertigo is no disgrace. He'd a sure had more help if he'd asked.

After the fact, no one told him he had hit the ramp and damaged his aircraft severely. He thought he'd just dragged a wing tip. All in all, once he got rid of that demon vertigo on his back, he handled the situation purty cool. Those two are durned lucky it ended so well.





"It is possible to fly without motors, but not without knowledge and skill. . . . When gliding operators have attained greater skill, they can, with comparative safety, maintain themselves in the air for hours at a time and thus, by constant practice, so increase their knowledge and skill that they can rise into higher air and search out the currents which enable the soaring birds to transport themselves to desired points by first rising in a circle and then sailing off at a descending angle." — Wilbur Wright, 1901



The author, in the front seat, and Maj. Grant Stanfill, USAF, Air Force Academy Chief of Airmanship, prepare for an unsuccessful altitude attempt in the 'wave' above Pike's Peak. Dr. Pursch soloed in gliders when he was 14. He was in Austria then and remembers that over there, they put would-be pilots in a glider and launched them off the side of a mountain — without the benefit of lessons! Although he has had his powered license for some time, and soloed in flight training in Pensacola, Dr. Pursch had no actual soaring lessons until August 1968, when his son, Joseph, Jr., also started. Last month, on his 14th birthday, Joe, Jr., soloed. But he had several hours of instruction behind him. In two years, when he is 16, he can get his private license.

Daedalus and Icarus of Patuxent River

By Cdr. J. A. Pursch, MC, USN
Patuxent River Soaring Team

Photographs by
JOC James Johnston, USN

'Although the builders of Babylon probably had the technical knowledge to construct a flying craft, they never tried. The archaic taboo was too strong.'



There is a time-old link between man's observation of birds and his desire to fly. For millennia it remained the province of poets and dreamers as man considered it the domain of the gods. Legend and mythology suggest man's primeval fear that the gods would punish with Icarian failure anyone so bold as to try. Although the builders of Babylon probably had the technical knowledge to construct a flying craft, they never tried. The archaic taboo was too strong.

Man remained essentially earth-bound until Lilienthal, and later the Wright brothers, grasped the advantage of the soaring bird over the wing flapper and started flying gliders.

The history of gliding and soaring, though unsung, is heroic and exciting. Countless enthusiasts have enjoyed soaring and made their contributions through occasional hard-won "lifts" and many more disheartening "sinks." The more famous among them were Otto Lilienthal, who by 1896 had logged over 2,000 flights; the Wright brothers, who in 1902 flew a glider with directional control and built a wind tunnel; Captain Ralph S. Barnaby, a Naval Aviator who flew a hand-built glider in 1909 and later supervised the Navy glider development in World War II; Anne and Charles Lindbergh; and most recently our astronauts, among them Neil Armstrong.

It's been a long flight from the foot-running starts of Lilienthal to the early 1960's when Paul F. Bickle, from California, set the world altitude record for gliders by climbing at a rate of 2,000 feet per minute to a dizzying height of 46,267 feet; and Alvin H. Parker, from Texas, set the world distance record by flying over 1,000 kilometers. Today, gliding and soaring are the consuming passions for more than 100,000 people all over the world. In the United States, there are more than 70 commercial soaring schools and more than 170 soaring clubs. Among these enthusiasts are the true birdmen of the Patuxent River Navy Soaring Team.

For them, it all began through the enthusiasm of Commander T. C. "Ted" Steckbauer, a Naval Aviator who first got the soaring fever in 1966



Lt. Jo Craemer, a Navy Nurse, waits in the cockpit of a 222 glider for a tow at Black Forest near the Air Force Academy, above. One of four women in the Patuxent Club, she has held a powered license for more than a year, a private glider license since last summer.



Capt. R. P. Prichard, Director of the Navy Test Pilot School, fits oxygen mask for altitude attempt at the USAF Academy.

at Torrey Pines near San Diego. After arriving at NATC Patuxent River, he insidiously passed the bug on to several others. In March 1969, they bought a Schweizer 2-22E two-seater and founded the Patuxent Soaring Team as a branch of the Navy Flying Club there. To date, it is the only military aero club with glider operations. In the first six months of operation, more than 600 flights were logged and over 20 glider licenses earned.

At about the same time, Captain R. P. Prichard, a Naval Aviator and Director of the Navy's Test Pilot School, began to consider the feasibility of using gliders in the test pilot training program. Actually, he was adding impetus to an idea which had, in 1967, generated in the mind of Captain Harry O'Connor. They contracted glider training for three test pilot school classes by the summer of 1968. In September 1968, Capt. Prichard flew to Elmira, N.Y., the soaring capital of the U.S. In two days he logged 22 glider flights, earned his commercial license (as did the rest of his staff) and was sold on the idea of gliding—hook, lift and sink. In April 1969, the test pilot school acquired two high

performance Schweizer 2-32 sailplanes and, through the hard work of LCdr. Jack Ready, a gliding syllabus was set up for the school. Since then every student test pilot gets at least eight glider flights as part of the training syllabus. The gliders occasionally are stressed to 5.5 paint-wrinkling G's and are put through every flying maneuver known to man, to give the student an almost palpable idea of aerodynamics.

If your travels should take you to Patuxent River on any Saturday, Sunday or holiday, you will probably notice something flying in the sky, as you might near any other naval air station. Only this time, you will very likely do a double-take, stop your car and crane your neck for awhile. You will be fascinated by the serene beauty of a white, slender-winged airplane silently wheeling and turning in the blue sky, quietly effortless and exquisitely graceful. Come, stranger! Make your way over to the runway and you'll find the Patuxent Soaring Team in operation.

There you will see the sailors of the sky waiting their chance to be pulled

aloft by car tow or aeroplane tow. Each is taking his turn at instructing, learning, flying the towplane, flight scheduling, giving "show-off" rides to friends or just plain lolling in the grass and swapping sky stories. You might even spot a newcomer who is vacantly munching a picnic sandwich while steeling his courage to take to the sky without a motor. He could even be a seasoned aviator whose thoughts are: "A dead-stick landing every time they go up — and on purpose? They must be crazy!"

What kind of people are these bird-men? Why, they represent a cross-section of the Navy: aviators, NFO's doctors, nurses, airdailes, retired personnel and dependents. Each started by paying a \$25 initiation fee which bought a membership in the aero club and soaring team. Some were surprised to learn that for soaring no physical examination is required — only your own statement that you have no known physical defect that makes you unable to pilot a glider. Age limit? None, to get instruction. To solo, you must be 14. At 16, you can get a private glider pilot license.

Those with a private power rating



'A dead-stick landing every time they go up — and on purpose? They must be crazy!'

were, for the most part, able to solo the glider after three to five instructional flights. And after two hours of total flight time (at least ten flights), they were able to take a flight test for their private pilot glider rating.

There are even several father and son members among them. Imagine! Father teaching his son how to fly. If you listen to the poet in you, you can almost hear Daedalus from the back seat, gently coaching young Icarus: "My son, be warned! Neither soar too high, lest the sun melt the wax; nor

swoop too low, lest the feathers be wetted by the Chesapeake Bay."

It is a rare opportunity for father and son to bridge the generation gap, with father teaching his son the thing he knows best and, at the same time, helping to instill a sense of competence and provide an opportunity for healthy father-son identification.

Through stick and rudder, the youth learns to stay on the tail of the tow-plane, to fly high-tow position, low-tow position and to transition from one to the other by circumventing the

buffeting prop wash. But he also learns how to deliberately fly into the prop wash and to maintain control of his light sailplane in the turbulence. Immediately upon entering it for the first time, he feels like he has flown from the wild blue yonder into the whirl of a washing machine on full rinse. He immediately wants to get out of there because he feels that things are beyond his control. But the calm, explaining voice and steadying hand on the back seat controls gradually restore his faith in the predictability of the small amount of universe which surrounds them. Through trial after trial, the boy's initially frantic efforts become measured, constructive responses. Soon he can maintain straight and level flight and calmly enter and leave the turbulence at will.



Maj. Chuck Cunningham, O-in-C of the Air Force Academy soaring program, and a member of the Patuxent River team move one of the Academy's nine sailplanes to the field, left. Above, a 222 is lifted by winchtow. Top right, Cdr. Ted Steckbauer waits for tow for his "gold" altitude flight. Above, AT1 Roger Galvin, Capt. R. P. Prichard and Janie Oesch, holder of the U.S. feminine multi-place altitude record, monitor calls from Steckbauer.

Through stalls, steep turns, simulated cable breaks and pinpoint landings, father and son do their thing together. And, at age 14, when the boy is ready, he goes aloft with the back seat empty. At 3,000 feet, he cuts loose from the towplane and watches it fall away to the left. To increase the separation he snaps his glider into a steep, climbing turn to the right and bleeds his air speed from 70 down to 40 mph before leveling off. His umbilical cord has dropped away, and he is at last free to soar and wheel and glide. He can almost hover in the sunny silence, alone with the wind and his dreams. The silence is faintly broken by distant, irate car horns drifting up from a traffic jam outside the main gate. He glances at his air speed indicator and maintains 40 mph. Just off his left

wing tip, there are pleasure boats churning out white, curving trails on the blue Chesapeake Bay, with a toy-like skier hopping the wake. Passing through 1,500 feet he hears the faint "pop . . . pop . . ." from the skeet range below. But enough of dreaming. He has to get ready to call the tower and plan his approach. Instead of an engine he uses lift to drag ratio spoilers and finely-honed judgment. And when he makes his pinpoint landing he has achieved that wonderful sense of technical mastery and emotional autonomy which only a solo flight can instill.

In January 1970, our team paid a visit to the Air Force Academy Soaring Club. It is ideally located at the foot of Pike's Peak near Colorado Springs. Their soaring program is de-

signed to "put the air in the Academy." They have more than 300 members and are working for the day when soaring will be mandatory for all cadets. They have nine sailplanes. Six of their instructors are cadets who had never soared prior to entering the Academy. All have achieved enviable records since. They have a tremendous team spirit which permeates the entire Academy and is fostered by the idea that cadets are taught this marvelous skill by their peers. Soaring provides the only piloting experience for those cadets who, because of vision problems, will never get flight training. When they graduate as engineers, aerologists, or whatever, they will — because of their soaring experience — have a much stronger identification with the flying world

'What makes a man want to fly a glider?' ...Excitement,

than they would have acquired through a mere Academy degree.

Through the courtesy of Maj. Chuck Cunningham, USAF, officer-in-charge of the soaring program, and Maj. Grant Stanfill, USAF, chief of airmanship (who was very kind to me during my familiarization flight), we were able to fly sailplanes at the Academy and at the nearby Black Forest Soaring Center. Capt. Prichard, with Cadet Tony Cann, soared from 13,000 to an exhilarating 17,500 feet over Pike's Peak ("Boy, oh boy," said the Captain, "that's the first time I've been on oxygen in a glider!"), and Cdr. Steckbauer won his "gold" badge by attaining an altitude of 23,500 feet after a towplane release at 13,000 feet. And he did it in the same "big wave" in which Neil Armstrong got his "diamond" by soaring to 28,500 feet only

three months before he went even higher in *Gemini 8*.

The Academy team hosted us with a number of very informative briefings and a tour of the Academy. During some of the brief sessions an interesting question was raised: "How come the Naval Academy has no soaring program?" The trip also was an opportunity for meeting some very fascinating people, such as Group Captain H. D. Campbell, RAF, who did much for gliding operations in England during World War II; and Janie Oesch, who holds the U.S. feminine multi-place altitude record (28,150 feet).

In this age of motors and rockets you might ask, "How can anyone fly an airplane without a motor?" Actually, all airplanes are gliders. If you don't believe it, listen to one of the

experts, Neil Armstrong: "... Both the *Gemini* and the *Apollo* spacecraft are gliders ... the spacecraft trims to an angle of attack of maybe 5 to 20 degrees and acts like an airfoil, producing a small amount of lift. ... The lift is not much by sailplane standards — the L/D (lift to drag ratio) of the *Gemini* is .015. But that's about enough to stretch your glide about 300 miles and make corrections for inaccuracies in the retro-firing or your flying on the way down." Armstrong was speaking to the Southern California Soaring Association in March 1967.

"What makes a man want to fly a glider?" You get many answers to that question, most commonly that it is great fun and a challenge: to pit your brains and skill against the elements without the aid of horsepower; to



Leader and instructor in the Academy program, Cadet 1/c J. C. Penney, briefs members of the Patuxent club on area rules. They are, second from left, LCdr. John Dluhy, MC, USN; Dr. Pursch; Group Captain H. D. Campbell, RAF (not a member); Cdr. Steckbauer and Gavin.



and the challenge!

guide your craft through smooth air and turbulence; to hear the song of the wind softly rustling on your wings; to feel the sudden "whoooooosh" which tells you that you've found an invisible column of rising air; and then to manage to circle tightly and stay in this airy elevator and gain altitude and avoid the temptation of getting sucked into the shearing cumulus which caps your rising air shaft. As Fleming MacLiesch said about flying, in *The Poetry of Flight, an Anthology*, "The men who have turned to it find here an experience in living beyond the intensities of drugs or drink. And there is no hunger — except that for success or a woman — which is like this hunger because here, in one particular, clearly-defined act, is both symbolized and made actual the hunger to achieve."



Impressions of a

By JOC James Johnston



Academy tower this is two-four-victor. Request tow for south launch, over."

"Two-four-victor, academy tower. Cleared for south launch, over."

"Roger academy tower. Launch! Launch! Launch!"

We bumped down the field, our tow-line attached to a *Super Cub* 200 feet in front of us. Off to the right, snow-covered Pike's Peak stood out on the horizon. To the left, the Air Force Academy airstrip whisked by under the 222's (glider) wing. We were airborne and the ride smoothed out.

"This is my first glider flight," I shouted at the pilot, Cadet Second Class "Chip" Malvik.

He turned his head slightly, and in a normal, somewhat incredulous tone, said, "Really?" Chip is an old hand at soaring. In less than a year he has accumulated more than 100 hours in gliders. He is one of the cadet instructors in the Air Force Academy's program. He won his diamond altitude pin last year at 16,404 feet — in the "wave" — above the Rocky Mountains.

We were still on tow. I could hear the drone of the *Super Cub*'s engine slightly above and in front and the wind whispering under the glider's wings and around the fuselage. I realized I need not shout in the stillness of unpowered flight.

"Where do you want to go?" Chip asked. "Over by the Academy, then back around by the mountains, so I can get some pictures," I said. He nodded and banked with the tow-plane. We were still on tow and moving toward the mountains. It got a little rough. The sailplane bounced around and Chip held the stick firmly centered.

"We're in a small rotor caused by wind currents at the base of the mountains," Chip explained. "We'll be out of it in a few minutes."

I had heard the Air Force pilots and cadets who frequently challenge the air currents above Pike's Peak talk

Sunday Afternoon

about the vicious rotors necessarily transited to get to the uplifting currents which generally begin 14,000 feet above sea level. They talked of glider pilots who, without properly tightened shoulder straps, had crashed their helmeted heads through the plexiglass canopy in the turbulent rotor. They recalled seeing the towplane tossed around like a cork at sea and of using every pilot skill they possessed to negotiate the rotor, while the sailplane fought against them to roll over and plunge earthward.

They wear parachutes when they go through that rotor because they also know stories of gliders being torn apart by the elements.

This rotor we were in could not compare with that awesome rotor those experienced pilots have come to respect: we were only occasionally bobbing.

Suddenly, the bouncing stopped, and I heard a dull thud from the nose. We seemed to have stopped, 2,000 feet above the field. We were free of the tow ship and now there was no sound except the wind playing on our glider. The stillness and view were pleasant. I

had my pictures and Chip made a steep bank left, back toward the Peak. The mountains were beautiful from above, a wispy blue-grey haze shrouding all but the snow-capped top of Pike's Peak.

The nose dropped and I had the first sensation of flight since we left the tow. I could tell we were going down, it seemed rapidly. Chip pulled back on the stick and we nosed up, still rapidly, and he shoved the stick forward until we were at the top of the arch. It seemed to be a fascinating dream in slow motion.

My cameras fluttered on their straps above our heads in a gentle, flowing, weightless dance. I remember wondering if they were going to crash back down against my chest and be damaged. As Chip straightened the glider out, the cameras fluttered a moment, then in the same slow motion, lazily drifted down, bounced softly on my chest a few times, and settled. The dream was over. Before I had time to think of it, Chip told me we had experienced negative G's — total weightlessness — and in a glider!

We were near the field again. I could

see the towplane below, lifting another sailplane to freedom, while others patiently waited their turn.

"I'll make a 360-overhead approach so you can get some shots of the field," Chip said. "What we'll do is make a complete circle and, when we come out of it, we'll be on the last leg for landing," he explained.

My camera was up, but I lost my bearings and therefore the pictures. When we straightened out on final, I could see the ground coming up over Chip's shoulder. Shortly, we were rumbling along the field, the aluminum wings clattering under the jolt. We stopped just feet from where we had started.

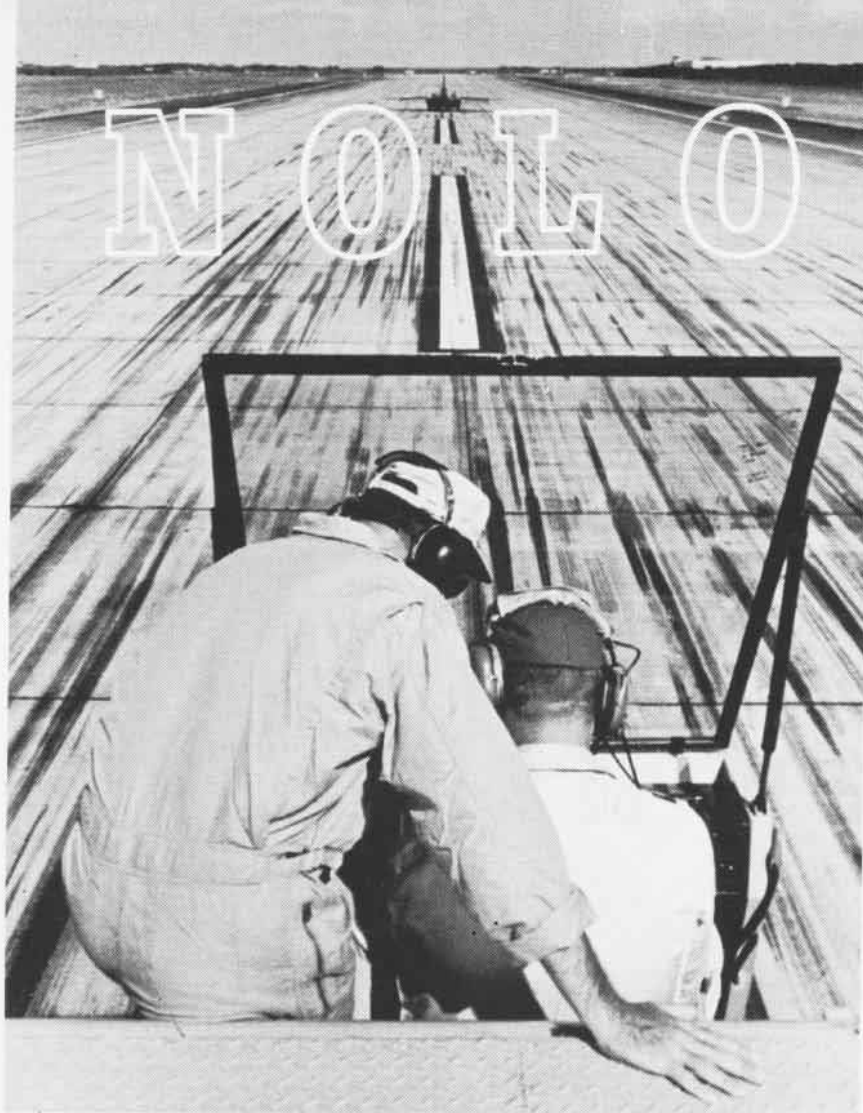
A cadet opened the canopy and door from outside.

"Well, what did you think of it?" he asked.

"That's an experience!" I told him.

...An experience I'm not likely to forget. I have an impression of a winter afternoon high above hazy blue mountains, a dream of dancing cameras, and a brief insight into what lures people to challenge the infinite air currents in unpowered aircraft.





By Lt. H. K. Lankford

Combat maneuvering and the speed of the modern fighter make the chance of a kill by fixed trajectory ammunition against hostile aircraft small indeed. The solution is a missile that is reliable against maneuvering targets. Therefore, most air-to-air missiles and surface-to-air missiles are tested against drone aircraft before being delivered to the fleet. Today's increasingly complex missile hardware requires increased target capability in order to measure its effectiveness prior to fleet usage. The drones used in missile evaluation have proved to be realistic targets.

To better understand the technical advances made in the control of airborne targets, an explanation of drone

equipment and methods of drone control is necessary.

The Navy has many different aerial targets in its inventory: AQM's, BQM's, QT-35's and QF-9's. The latter two are the drones principally used in missile testing.

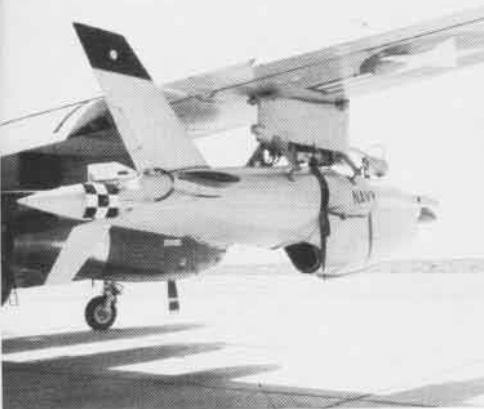
The QF-9J, an AF-9J *Cougar* which has been converted by the addition of a Bendix remote-controlled autopilot system and a coat of red paint, provides a highly maneuverable target. The autopilot allows remote control of every function in the aircraft except starting and stopping of the engine. This radio-remote control, although much more sophisticated, is essentially the same as that used in model airplanes.

The vehicles and aircraft used to control drone aircraft during an operational mission are: a mobile control van (Fox 1), a drone control DT-28 *Trojan* (Charlie Alpha), two drone control DF-8 *Crusaders* (Charles 1 and 2), and an out-of-sight control station (Fox, Jr.). Fox-1 controls takeoff and landing of the drone aircraft which is commonly called a NOLO (no live operator). Charlie Alpha controls the NOLO just after takeoff and just prior to landing. Charles 1 and 2 take over during the rest of the flight with the exception of the time Fox, Jr., is in control — on a "hot-leg," the actual pursuit of the drone and firing of a missile by an aircraft, Charlie Alpha and Charles 1 and 2 must fly close formation on the NOLO in order to maintain proper control.

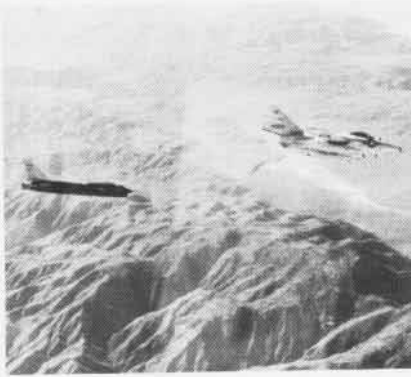
Development of new weapons systems has placed more stringent requirements on the targets. In order to meet the QF-9 drone aircraft requirements, several innovations were developed to improve or alter the normal straight-and-level drone system. By 1964, certain missiles had reached a stage that required a high — G — level turn for some shots. This was impossible with the autopilot system then in use. The Naval Missile Center (NMC), Point Mugu, Calif., developed a high-G kit which, when installed in the autopilot of the QF-9, enabled the drone to bank 85 degrees and pull an average of 4.5 to 5.5 G's. This proved to be a more realistic target.

When the NOLO is on a hot-leg, the "shooter" closes from behind and launches his missile. At that time, Fox, Jr., "keys" the high-G mode into the NOLO, and NOLO performs its steep turn, high-G maneuver in an attempt to evade the missile. This method of target presentation has been instrumental in determining the effectiveness of several Navy missiles.

An airborne television system was developed at the Naval Weapons Center (NWC), China Lake, in 1964, as an aid to remotely control two QF-9 drones in dual-target presentations. This system of presentation was developed to determine missile reaction



QF-9J DRONE aircraft is lined up by control van for its final Atlantic Fleet launch, left opposite. Above left, QF-9J takes off under radio control of a DT-28. DF-8 sets up



NOLO for a "hot-leg," above right. At right is number 886 with 20 missions. She has had 16 missiles fired at her. A BQM-34A under a P-2's wing is shown prior to flight at left.

when confronted with two targets, both of which lay within the missile parameters. The system utilizes a TV camera and transmitter installed in a pod and mounted under the wing of the "slave" drone.

Both drones are launched, placed in formation by control aircraft and then turned over to a ground controller who maintains the slave in formation on the lead aircraft, by use of its television.

This dual-target presentation has some severe drawbacks, such as the number of personnel required to conduct the operation and the degree of expertise required by the controllers. The most skilled controllers have difficulty maintaining formation as any change in the relative movement between the two aircraft will cause the

lead aircraft to disappear from the controller's television screen. When this occurs, it takes a tremendous amount of skill, and luck, to regain the proper formation. Despite the drawbacks, this system has been used with considerable success.

The difficulties encountered in the dual-target presentation and the increased requirements anticipated for formation targets led to the proposal for an Automatic Formation Drone Control (AFDC) system. This China Lake project is now in the engineering development stage. Original development utilized a QF-9, but is intended for all maneuvering targets. The system was designed to cope with as many as four aircraft, in formation, utilizing computer command through data link to a digital autopilot.

After many experimental two QF-9 formation flights, the system was deemed ready for flight in a pilotless aircraft. A digital autopilot was installed in a BQM-34A, a subsonic target drone, and a successful formation flight was flown in 1969. The BQM was flown by a computer in perfect formation on a piloted QF-9 for approximately 30 minutes.

A more recent development in the art of drone control is visual control (VisCon). VisCon uses a forward-looking TV camera which enables the controller to actually see as if he were in the aircraft cockpit. In fact, the remote controller exerts the same physical effort as if he were flying on instruments for an extended period.

Personnel at China Lake devised VisCon primarily for the BQM-34A, and it also has been successfully demonstrated at Point Mugu.

The latest drone control system is a combination of two previous systems. Using the digital proportional control and VisCon, engineers at China Lake have devised a method whereby one man can control the target throughout an entire mission, including takeoff and landing. The mission profile of this particular target is greater than any previously designed. Using the combined systems, which are still under development and experimentation, the target can be more precisely controlled. It can fly a high-G turn with reversals and cap it off with a split "S." The different data presented to the remote controller give an instantaneous conception of the aircraft's performance. In essence, the drone is fully as maneuverable as a manned aircraft, making it a much more difficult target to hit.

If the ultimate goal of missile development is the delivery of reliable missiles to the fleet, then it can be said that without the contribution of realistic target presentations, missile testing would be incomplete. Missiles would be delivered with unknown capabilities and profiles, exposing fleet pilots to an untried offense/defense system in a hostile environment. The drone provides the test of realism.



A CORPSMAN shows students how to fit masks and helmets for a practice ascent in the chamber. At 30,000 feet, right, a rubber glove swells under pressure as students breathe pure oxygen.



Theory and Object Lessons Teach Survival in the Sky

The altitude in the Aerospace Physiology Training Detachment's pressure chamber at NAS Miramar reached 30,000 feet. Inside, HM2 James Siess disconnected ATN3 William Perry's lifeline of pressurized oxygen and handed him a deck of cards.

Perry began drawing from the deck, holding each card up (so the other helmeted and masked occupants of the chamber could see it) and identifying it: queen of hearts, jack, nine of spades. Then he dropped them into a slotted box.

Within a minute, his lips were blue. In another minute, he was mumbling and having difficulty handling the cards. He began slumping over as though he were sleepy.

HM2 E. F. Freeman, one of two outside observers, told Perry, via the intercom, to reconnect his oxygen. He did not respond. After two more attempts over the intercom, the observer told Siess to connect Perry's oxygen for him.

Air-starved breathing, cyanosis (the body turning blue), confusion — the pressure chamber demonstration caused Perry to experience all of the objective symptoms of hypoxia. Later, with altitude reduced to 18,000 feet, the other aircrew students in the chamber removed their oxygen masks in order to experience hypoxia.

by AMSAN Larry Winn

Most of the propeller aircrewmembers from North Island who took their training at Miramar's Aviation Physiology Course late last summer will never use oxygen equipment in their jobs, but they are ready for any eventuality. Training is one of Physiology's specialties. Two hundred twenty-four classes of up to 18 members are processed annually. Pilots and aircrewmembers come from as far as the East Coast to learn life support systems at Miramar.

Whether they are aircrewmembers, pilots converting from propeller to jet or pilots undergoing refresher courses (as they must every three years), each becomes familiar with the inside of a pressure chamber. They learn to breathe against instinct.

"Hyperventilation is a very natural reaction to high altitude flight," Ens. J. E. Cutler told the North Island class. (In a recent incident in the pressure chamber, an experienced propeller pilot lost consciousness as a result of overbreathing.)

Frequently caused by anxiety or excitement, hyperventilation symptoms are similar to hypoxia, or lack of oxygen. Hyperventilation is caused by the too rapid flow of oxygen from the lungs, resulting in a change of blood chemistry and constriction of the

lung's blood vessels. Therefore, less oxygen than necessary reaches the blood.


A particularly frightening reaction to high altitude is aviator's bends (decompression sickness) which is similar to diver's bends. Nitrogen gas in the tissues bubbles when pressure is removed from the body too quickly. The result can be anything from an itch to severe pain, blindness, paralysis or death. Usually, one of the first symptoms is a dull ache which begins in the joints and projects along nerve fibers until the entire limb is involved.

Because of their susceptibility to aviator's bends, the observers who work within the pressure chamber are limited to one 30,000-foot ascent in a 24-hour period.

The course also teaches the men how to use their eyes, especially at night, and how to clear stuffy ears during and after low-pressure flights.

The North Island group's training stopped at that point, but other training devices available at Miramar include ejection seat trainers capable of eight G's in one-tenth second and an olympic-sized pool with a down-at-sea simulator.

CWO-4 W. W. Frye, special assistant to the head of the training detachment, calls it "the most unique and complete physiology training department in the Navy."



I want to be a Navy pilot when I grow up because it's fun and easy to do. Pilots don't need much school, they just have to learn numbers so they can read instruments. I guess they should be able to read maps so they can find their way if they are lost. Pilots should be brave so they won't be scared if it's foggy and they can't see or if a wing or motor falls off they should stay calm so they'll know what to do. Pilots have to have good eyes so they can see through clouds and they can't be afraid of lightning or thunder because they are closer to them than we are. The salary pilots make is another thing I like. They make more money than they can spend. This is because most people think airplane flying is dangerous except pilots don't because they know how easy it is. There isn't much I don't like, except girls like pilots and all the stewardesses want to marry them so they always have to chase them away so they won't bother them. I hope I don't get airsick because if I do I couldn't be a pilot and would have to go to work.

A Fifth Grader

RESASWTAC

Schools for Sub Killers

Two of the Navy's most advanced ASW schools are operated by the Naval Air Reserve Training Command. These ASW tactical schools, known as ResASWTacEast at NAS Willow Grove, Pa., and ResASWTacWest at NAS Los Alamitos, Calif., train Regular and Reserve aircrewmembers in the difficult art of antisubmarine warfare.

The training syllabus emphasizes ASW sensor operator training and tactics for pilots and NFO's. Some students also receive training in the maintenance of electronic equipment for associated weapons systems. All together, the schools offer some sixty courses ranging from theoretical and practical aspects of airborne electronic equipment to the operational and tactical phases of ASW. Pilots and TACCO's receive basic and advanced antisubmarine courses and are kept up to date on the latest fleet ASW tactics and procedures relating to flight, operational control center procedures, ASW classification and analysis methods.

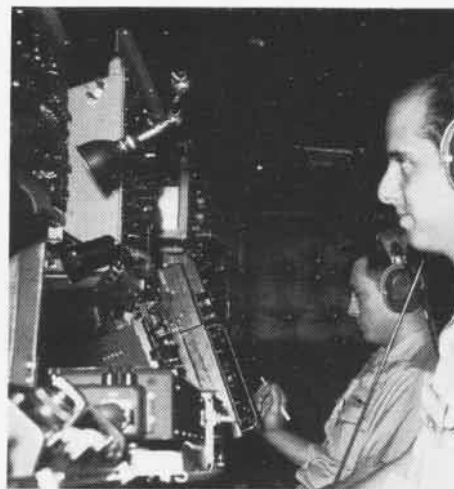
The staffs of ResASWTac schools are made up of specially selected and skilled instructors, chosen to provide a wide diversity of experience in all fields of ASW operations and associated electronic equipment. Instructors, in addition to conducting classroom training, supervise student aircrewmembers while they solve simulated tactical problems in sophisticated ASW tactical trainers. The trainers are designed to accommodate an entire crew in their assigned positions and simulate a complete tactical situation from search phase to "kill" without ever leaving the ground. The trainers duplicate the interior of the various aircraft crewmembers are expected to fly, including SP-2H, S-2D/E and SH-3A.

One training device produces and transmits signals imitating characteris-

tics of a submarine that may be detected and monitored by ASW aircraft overhead. This introduces even more realism into the training program by allowing sensor operators to operate their detection equipment in an actual flight environment. Since ASW training is divided between classroom sessions and in-flight training, crews log plenty of overwater time. Sometimes the realism is heightened through the availability of a participating submarine.

In addition to crew training, ResASWTac's provide a continuous program for initially training Reserve AW ratings and give refresher training to Regular Navy personnel coming from as far as Puerto Rico and Guantanamo Bay. Air Force, Marine and Coast Guard crewmembers have also received training over the years, as well as foreign students from such places as Thailand, Italy, West Germany, Brazil and other Latin American countries. The two Reserve ASW Tactical Schools contribute significantly to our Navy's ASW capability by graduating some 4,500 students annually.

The product of these CNAResTra-operated schools is a well trained and combat ready Reserve ASW force prepared to augment fleet needs. Reserve VP squadrons presently fly surveillance patrols in direct support of Regular Navy commitments and participate in major fleet exercises. In addition, Reserve OpCon personnel, trained by the ResASWTac's, augment fleet operational control centers in support of ASW exercises. In the event of a recall to active duty of Reserve ASW units, two antisubmarine carrier air groups are available and would report for duty under new Reserve planning (*NA News*, March, p. 18), ready to deploy against an enemy.





RESERVE CREW prepares for ASW flight during active duty at ResASWTacWest, left. P-2 crew finds target during antisubmarine exercise, right. TACCO's utilize P-2 tactical trainer at NAS Los Alamitos, below left. Basic ASW course includes instruction in the operation of the sonobuoy, below center. Student learns to troubleshoot the APS-88 radar system at ResASWTacEast, below right. S-2's of a Reserve squadron fly to the estimated location of submarine to practice ASW training, bottom left. SH-3A from NAS Seattle employs antisubmarine training on return to home station, bottom center. Students at NAS Willow Grove ASW school plan their next inflight training problem.





SELECTED

Reserves Receive First A-4L's

Several *Skyhawk* squadrons in the Naval Air Reserve Force will be receiving the news that they are to be re-equipped with the new A-4L. The first of these reworked A-4's came off the line in December and already a number have been turned over to NARTU Jacksonville.

The new aircraft will be used to outfit VA squadrons in one of the two Reserve carrier air wings to be formed. The other CVWR will fly A-4C's. The equipping of Reserve units with new first line aircraft further underscores the announced program to upgrade the Naval Air Reserve so that it will be a fully combat ready force (*NA News*, March 1970, pp. 18-19).

The A-4L has an improved engine, bombing computer system and internally housed electronic equipment formerly carried in external pods. The sophisticated electronics are located in a hump in the fuselage behind the cockpit. The plane is capable of launching air-to-air and air-to-ground missiles as well as delivering nuclear weapons.

Under Secretary of the Navy John W. Warner and Director of Aviation Plans and Requirements, Rear Admiral William D. Houser, showed Navy Department interest in the project when they visited NARTU Washington recently to see the aircraft and talk to NARTU Jacksonville's program manager for attack aircraft, Lt. Dan Corley, about this latest modification to the durable *Skyhawk*.

Quonset Point Reserve Det.

A Naval Air Reserve Training Detachment has been established at NAS Quonset Point to train personnel in helicopter units formerly located at NAS South Weymouth. The units



NEWEST aircraft in the Naval Air Reserve inventory is the A-4L Skyhawk. The reworked A-4C has numerous improvements.

transferred are HS-70Z1, HS-66Z2, and HS-5Z3, totaling 225 Reserves.

NARTD Quonset is equipped with five SH-3A antisubmarine helicopters, and expects to receive four more in the future. The units were moved to Quonset Point in order to provide better training and support facilities in line with the modernization of the Naval Air Reserve.

Commander Robert A. Wenning will be officer-in-charge of the detachment, with direct operational and administrative control remaining with the commanding officer of NAS South Weymouth.

Captains Selected for Rear Admiral

The President has approved a list of seven Naval Reserve captains selected for promotion to the rank of rear admiral. One of the officers, Captain Samuel Woodrow Van Court, Great Neck, New York, is assigned to the Naval Air Reserve Advisory Council and is a special assistant to the commanding officer of NAS New York where he also performs duties as a member of a training and support component.

Captain Van Court is self-employed as Director of Scientific Research Associates in New York City. The other selectees represent Naval Reserve surface forces as well as the Civil Engineer, Medical and Supply Corps.

White Hat to Astronaut

A former Naval Air Reservist who began his career at NAS Dallas as a "white hat" in 1949 returned recently to a hero's welcome in Fort Worth, Texas.

Captain Alan L. Bean, the fourth man to walk on the moon, used to go out to NAS Dallas at 16 and watch the planes fly over. He became acquainted with some of the flyers and decided he wanted to become a jet pilot. At 17, Bean joined the Reserve as an airman recruit. Now, a little over 20 years later, Captain Alan Bean, USN, astronaut, returned to his hometown and a Texas welcome, featuring a ticker tape parade, celebrating "Alan Bean Day."

At a special luncheon, the principal of Bean's high school presented him with the eagles and shoulder boards of his new rank. In return, Captain Bean presented Paschal High School with a plaque showing the high school flag he had taken with him to the moon.



Montana State's Homecoming Queen, vivacious Carolyn Vick, aided recruiting efforts of NAS Seattle's Naval Aviation Information Team during a visit to the school.

AIR RESERVE



CAPTAIN John A. Chalbeck, who piloted the A-4B to NAS Glenview's 100,000th GCA landing, is congratulated by Lcdr. Robert D. Riley, GCA and assistant operations officer. At left is RD1 Gerald R. Northfield, controller for the landing, and at right, Reese Jones, a McDonnell-Douglas representative. Glenview's GCA unit has been operational since 1947.

GCA Logs 100,000th

NAS Glenview's GCA unit recently completed its 100,000th successful ground controlled approach when Captain John A. Chalbeck, USNR, piloted an A-4B *Skyhawk* to a smooth touch down at the field.

Coordinating the approach were Lcdr. Robert D. Riley, GCA officer, and RD1 Gerald R. Northfield, the controller.

Lcdr. Riley and his staff operate the unit on a 24-hour basis, providing all-weather capability. The Glenview GCA unit has been in commission since July 1947.

NAF Detroit Wins CNATra Trophy

Reserves at NAF Detroit, located aboard Selfridge AFB, have received the Chief of Naval Air Training Trophy which is awarded annually to the Reserve station or NARTU which

demonstrates "the greatest improvement in competitive training."

In order to win the award all Reserve units must achieve top efficiency so that the overall score for a particular base exceeds all other Reserve bases. This year's award was presented during an awards ceremony by VAdm. Bernard M. Strean, Chief of Naval Air Training.

Legislating Meteorologist

New Jersey Assemblyman James J. Florio takes time one weekend a month to turn weather prognosticator for the Navy. As Lt. Florio, of NARDiv-N1, he provides weather briefings for Naval Air Reserve aircrews preparing for flights from NARTU Lakehurst.

Lt. Florio has been associated with the Selected Reserve for more than 12 years; at one time as an aerographer's mate and now as a meteorology offi-

cer. Lt. Florio says he feels his continued participation in the Naval Air Reserve is beneficial to him in his new legislative duties since it allows him to meet a large cross-section of people from all parts of New Jersey.

Chapel Named for Capt. Schram

The late Captain Richard A. Schram, known to millions as the "Flying Professor," was honored at NAS Glenview recently when the station chapel was named for him. Following a service in the chapel at which Chaplain Bashford S. Power paid tribute to Capt. Schram, Captain Drexel E. Poynter, base commanding officer, unveiled a plaque dedicating the Richard A. Schram Memorial Chapel. Capt. Schram, a long-time Naval Air Reservist, devoted much of his time to promoting interest in Naval Aviation and performing aerial demonstrations throughout the United States. Capt. Schram was killed while engaged in his "Flying Professor" act last summer (*NA News*, August, 1969, p. 15).

Naval Aviation Display

NARTU Lakehurst recently sponsored an extensive Naval Aviation display at the opening of a new shopping mall in Moorestown, N. J. The display included 28 original paintings, selected from the Navy's Combat Art Collection, which depicted different phases of Naval Aviation.

Other exhibits included an operating scale model of the newest catapult and arresting gear, survival equipment, an ejection seat, and a full-size display of a parachutist in the process of descending from altitude. Uniformed naval personnel were present to answer questions and explain the workings of the displays.



ON PATROL

with the Fleet Air Wings

VP-31 North Island Det Disestablished

With the last P-2's phased out of active duty, Patrol Squadron 31's North Island Detachment—commissioned to train *Neptune* pilots and now without a job—has been disestablished.

The spaces and training devices, however, will not go unused. At the time of the detachment's exit, a Naval Air Reserve Training Detachment moved in and took over the facilities to train Reservists who still fly the *Neptune*.

The decommissioning does not change VP-31's assignment: training replacement crews for VP squadrons in the *Orion*. Squadron headquarters is at NAS Moffett Field.

During its existence, VP-31's North Island Det. trained more than 2,000 pilots, 700 NFO's and 10,600 aircrewmen and maintenance personnel who flew and maintained *Neptunes*. The detachment reached its operational peak in March 1964 when its aircraft logged 1,411 hours.

In addition to its primary mission of training patrol crewmen, the detachment also was active in training SAR crews, Army aviators who flew *Neptunes* in Southeast Asia, and in test and development.

VP-1 Moves to Hawaii

Patrol Squadron One, currently deployed to the western Pacific, won't be going back to its old home after this deployment. After 22 years of being home-based at NAS Whidbey Island, VP-1 has moved to Barber's Point, Hawaii.

The squadron deployed from Whidbey in late January with knowledge of the forthcoming move. While operating in the western Pacific, they re-



IT'S A MAN'S WORLD?—Well, it was. But recently these five young officers have made a substantial dent, at least in the man's world around Patrol Squadron 31 at NAS Moffett Field. They aren't flying yet; their jobs are still administrative. In fact, they were as surprised as the men when they found themselves ordered to the squadron. Posing with the skipper, Captain Karl J. Bernstein, are left to right: Lt. Bonnie Hampson, Ltjg. Faith Johnson, Ens. Pat Godel, Ens. Cubby Smith and Ens. Toni Marzola. Actually, the ladies are doing a good share of the administrative paper work, thus freeing pilots for flying duties.

ceived orders for their permanent change of station.

The move is in accordance with current reduction in forces throughout the Defense Department. Last fall, VP-1 transitioned from *Neptunes* to *Orions* and remained the only active duty patrol squadron at Whidbey. VP-2 and 42 were deactivated at Whidbey under the budget cut program.

VP-1's move involves more than 400 officers and enlisted men.

VP-49 Has 49 New Fathers

Participating in the Lutheran Foundation's "Adopt an Indian Child" pro-

gram, 49 officers and men in Patuxent River-based VP-49's AW division have each agreed to contribute one dollar monthly to provide a foster home for a three-month-old Sioux Indian. The child, ill since birth, has spent most of his life in hospitals. The Sioux Tribal Council placed him with the Lutheran Foundation until his parents become financially able to take care of him.

VP-49's offer to sponsor a child made it possible for the Foundation to accept the baby.

The 49 men are considering a trip to South Dakota, perhaps this spring, to visit the baby and maybe take him a gift or two.

Double Alpha for VP-17 Crew

The 14 members of VP-17's Crew Five have achieved "double Alpha" distinction in Pacific patrol squadrons.

During a recent deployment to MCAS Iwakuni, Japan, Crew Five completed the series of ground and flight training requirements for ASW "Alpha" readiness status. Each crewmember has earned his aircrew wings under the ComFAirWingsPac syllabus.

Double Alpha status requires crewmen to be effective as an ASW unit as well as highly qualified on individual levels. Candidates must be in top physical condition, possess security clearances, complete sea and land survival courses and satisfy the training requirements for individual crew positions.

They also must have logged more than 50 flight hours, pass a NATOPS exam and be recommended for aircrewman by their patrol plane commanders.

VP-17's Crew Five is under the leadership of LCdr. Bobby Farrar. Ltjg. Phillip Harvey is the TACCO.

MUC Goes to VP-48

A Meritorious Unit Commendation has been presented to Patrol Squadron 48 for its performance while deployed to Adak, Alaska. The squadron was cited for maintaining maximum readiness in spite of rigorous operational and environmental conditions in a relatively isolated area.

Rear Admiral Charles S. Minter, Commander Fleet Air Wings, Pacific, presented the citation to VP-48 C.O., Commander E. G. Anderson, during a command personnel inspection.

VP-47 Relieves VP-50 in Okinawa

The *Golden Swordsmen* of VP-47 have assumed patrol duties over sealandes and coasts in the western Pacific after relieving VP-50 on Okinawa. Both squadrons are home-based at NAS Moffett Field, Calif.

VP-50 returned to Moffett Field after a six-month deployment to Naha. The aircraft arrived in three-plane contingents over a one-week period, with the first group led by Commander

Charles O. Prindle, the executive officer.

During their deployment, VP-50 flew more than 5,500 accident-free hours in support of Southeast Asian operations. Detachments flew from Guam, Japan and Cam Ranh Bay, while operating as their own task group under Commander Patrol Forces, Pacific Fleet. VP-50's commanding officer is Commander Charles K. Anderle.

VP-47, under the command of Commander A. L. Raithel, Jr., maintains a detachment at Cam Ranh Bay while deployed, although the operations primarily are centered in Okinawa.

TACCO Power!

Six of VP-24's tactical coordinators recently were promoted to lieutenant commander, bringing the total of two-and-a-half strikers in the squadron's TACCO complement to nine. Pilots hold only six lieutenant commander slots.

The new lieutenant commanders are: Leòn R. Miller, William J. Rodriguez, Charles L. Robertson, Jr., William R. Mackay, John A. Mason and Thomas C. Stringer.

The Patuxent River-based squadron TACCO's are grooming for the challenge in the new P-3C *Orion*.

VP-56 Officer Gets Medal

LCdr. George R. Allender recently was presented the Navy Commendation Medal by VP-56 commanding officer, Commander Melvin Meltzer.

The medal was presented for "meritorious service" while he was attached to *Bon Homme Richard* (CVA-31) as assistant combat information center officer.

LCdr. Allender went through P-3C transition at FAETULant and VP-30 prior to reporting to VP-56 in January. He is squadron training officer.

VP-8 P-3 Passes 7,000 Hours

One of Patrol Squadron Eight's P-3A's — LC-31, Bureau No. 149675 — recently became the first *Orion* to pass 7,000 hours.

The VP-8 *Tigers* aboard for the flight, which included the aircraft's 2,032nd landing, were the men of Crew Eight, led by their patrol plane commander, LCdr. Bill Arner.

LC-31's career with VP-8 began in September 1962. Now in its 94th month and fourth tour in the squadron, the plane has flown in several deployments to the East Coast and in WestPac in 1966.



SECRETARY WARNER AT CONTROLS

Under SecNav Flies with VP-44

During his recent tour of naval installations in the Mediterranean area, Under Secretary of the Navy John W. Warner flew an ASW patrol with a VP-44 crew operating out of NAF Sigonella, Sicily.

During the flight the Secretary witnessed the workings of a full spectrum of ASW sensors and observed the capabilities of the P-3A *Orion* in a detection exercise.

Mr. Warner, in flight suit and squadron cap, copiloted the P-3A back to Sigonella where he toured the squadron deployment area and was briefed on ASW patrol in the Mediterranean.

Rear Admiral G. E. Miller, ADCNO (Air), accompanied Mr. Warner.



LAST

By PHC Bruce Bennett
and PH1 Tom Sorensen

The active life of the P-2 *Neptunes* has come to an end after a quarter-century of illustrious service with the fleet. The last of the Navy's active P-2 patrol planes flew from Brunswick, Maine, to Norfolk in mid-February.

Piloting on the last flight of the "Neptune Era" was Rear Admiral Thomas D. Davies who also piloted the famous *Truculent Turtle*, the third P-2 accepted by the Navy.

During the latter part of World War II, Adm. Davies had duty in connection with patrol plane design in the Bureau of Aeronautics. It was here that he helped develop the P-2 *Neptunes* and began planning for Project *Turtle* which was to set a non-stop, long distance, flying record that stood for 16 years.

On September 29, 1946, the then Commander Davies, along with two other naval officers and one kangaroo, flew non-stop from Perth, Australia, to Columbus, Ohio, in the *Truculent Turtle*. The historic flight of 11,236 miles lasted a grueling 55 hours and 17 minutes, at speeds averaging 204 miles per hour.

The *Truculent Turtle* is permanently displayed at NAS Norfolk, which Adm. Davies commanded as a captain in 1963.

After departure ceremonies at NAS Brunswick in which Captain Clarence E. Mackey, ComFAirWing Three, bade farewell to the aircraft and crew, the "Last Fleet Turtle," (nicknamed by



ALTERNATING in the left seat on the last active P-2 flight were, left, Commander Raymond L. Christensen, VP-23 commanding officer, and the squadron executive officer, Commander Robert J. Campbell, who began his career in *Neptunes* in 1954. Cdr. Christensen is currently transitioning to P-3 *Orions* at VP-30 headquarters, NATC Patuxent River, Md.

VP-23) took off for the three-and-one-half-hour flight to Norfolk.

Ceremonies in Norfolk commemorating the event were attended by Vice Admiral Robert L. Townsend, Commander Naval Air Force, Atlantic, Rear Admiral Ralph Weymouth, Commander Fleet Air Wings, Atlantic, and Admiral Davies, who is Deputy Chief of Naval Material in Washington.

The *Neptune* will be modified by the Naval Air Rework Facility in Norfolk and later used as a drone at Roosevelt Roads, Puerto Rico.

The aircraft, officially known as SP-2H, Bureau No. 147969, was co-piloted by Commander Raymond L. Christensen, commanding officer of VP-23, and Commander Robert J. Campbell, executive officer. Also on



board were a crew of four enlisted men from VP-23 and Frank Hampton, Lockheed Aircraft's representative, who has been assigned to the *Neptune* program since 1948 and who has flown in every model.

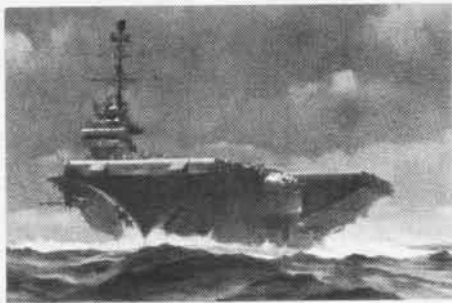
Lockheed built eight models of the *Neptune*, discontinuing production in April 1962, after 17 years, with a total of 1,167 aircraft manufactured. The *Neptunes* have served and are serving the armed forces of nine countries.

Within the U.S. Navy, they have been replaced by the newer and more sophisticated turbo-prop Lockheed P-3 *Orion*. However, like *Neptune* of mythology, the P-2 *Neptune* has added many stories to the history of the sea. The *Neptune's* surveillance and control of the seas deserve a "well done."

ACTIVE P-2



VICE ADMIRAL Robert L. Townsend, Commander, Naval Air Force, Atlantic Fleet, speaks at ceremonies in Norfolk, left. He said: "I am not a patrol pilot by trade, but I have had some exciting moments lifting Neptunes off carrier decks using JATO bottles." Above, Rear Admiral Thomas D. Davies pauses in his right seat duties to eat an inflight lunch, en route from Brunswick, Maine, to NAS Norfolk.



at Sea with the Carriers

PACIFIC FLEET

Iwo Jima (LPH-2)

Iwo Jima has been designated the primary recovery ship for the *Apollo 13* moon launch scheduled to rise from Cape Kennedy April 11. The amphibious assault ship will recover the three astronauts and command module after an April 21 splashdown in the mid-Pacific.

Officials from NASA, the Office of the Chief of Naval Operations, the Manned Spacecraft Recovery Force, Pacific, and various news media met on board *Iwo Jima* with ship's officers early in January for a two-day planning conference.

Iwo Jima, commanded by Captain Leland E. Kirkemo, returned from her fourth combat tour in Southeast Asian waters last October.

Kearsarge (CVA-33)

The recovery ship for the United States' first two manned orbital space flights (in 1962 and 1963), has been decommissioned at the Long Beach Naval Shipyard.

Following four- and one-half months of preparation, the 41,000-ton *Kearsarge*, commanded by Captain Leonard M. Nearman, was committed to the mothball fleet.

CVS-33 has been homeported in Long Beach for 12 years. The carrier was commissioned in the New York Shipyard.

Midway (CVA-41)

"The United States Ship *Midway* is in commission. I have assumed command and report for duty in Carrier Division Seven."

With these words, Captain Eugene

J. Carroll, Jr., signalled *Midway's* recent return to the fleet following a four-year modernization at the Hunters Point shipyard in San Francisco.

More than 4,000 persons attended the commissioning ceremony which began when Rear Admiral Norbert Frankenberger, Commander, San Francisco Naval Shipyard, formally delivered the ship to the Navy.

Rear Admiral Leo B. McCuddin, Commandant, Twelfth Naval District, read the commissioning directive and ordered *Midway* placed in commission.

New catapults, arresting gear and deck-edge elevators will enable CVA-41 to operate aircraft one-third heavier than those of her sister ships. Below the flight deck, shops and living quarters have been rearranged and enlarged. Air-conditioning has been added to all berthing spaces and most working areas in the ship.

Computer controlled systems such as the Naval Tactical Data System and the Ship's Inertial Navigation System will increase her operational efficiency.

Ranger (CVA-61)

Alameda-based *Ranger* has been awarded the Navy Unit Commendation for "exceptionally meritorious service" during her 1968-69 deployment off the Vietnam coast.

The award, presented by Rear Admiral J. C. Donaldsen, ComCarDiv-Three, on behalf of the Secretary of the Navy, was accepted by Captain J. P. Mooror, CVA-61's commanding officer, and Commander A. E. Hill, CAW-2.

Ranger, now on her fifth combat deployment to the western Pacific, serves as flagship for RAdm. Donaldsen.

The 80,000-ton attack carrier was cited for a series of "outstanding, ag-



THE NEW *Midway* is back in commission following a four-year modernization at Hunters Point Naval Shipyard. Capt. E. J. Carroll, Jr., took command at the commissioning.

gressive and professionally conducted air strikes against enemy troop concentrations, logistic storage areas and lines of communication."

These actions resulted in major contributions toward accomplishing the mission of Task Force 77.

Constellation (CVA-64)

Captain John M. Tierney assumed command of *Constellation* recently when he relieved Captain John S. Christiansen who has been assigned to the Office of the Chief of Naval Operations.

Capt. Tierney took the helm after a tour of duty as chief of staff for ComCar-Div-One.

CVA-64 is on her fifth combat cruise off the coast of Vietnam.

Oriskany (CVA-34)

Sixty students and staff members of the Brazilian Naval War College received a close look at *Oriskany* recently.

The officers, representing the Brazilian Navy and Marine Corps, were hosted by Captain John A. Gillcrist, CVA-34's commanding officer. The visitors received briefings on the organization and functions of the deck, operations, weapons, engineering and air departments.

The students are participating in an 18-day orientation visit of naval installations and other activities in the United States and the Panama Canal Zone as guests of the Department of Defense.

The carrier is at Hunters Point Naval Shipyard in San Francisco preparing for her eleventh WestPac deployment and fifth consecutive tour off Vietnam.

ATLANTIC FLEET

Shangri-La (CVS-38)

Dependents' Day cruises are aimed at giving civilians a day-long, first-hand look at a ship's operation. But 950 *Shangri-La* guests recently received an unexpected overnight stay.



SLEEP was snatched anywhere that it could be found during an unscheduled overnight stay for 950 *Shangri-La* guests. Heavy fog caused the late return, but the cruise was enjoyable.

Heavy fog prevented the Mayport-based carrier from entering port as scheduled. The ship finally penetrated a light fog and returned the next afternoon — 25 hours late.

Captain Herbert R. Poorman, *Shangri-La*'s skipper, said the 33-hour cruise was a success.

Seasickness was a problem during the cruise. *Shangri-La*'s medical department handled 800 cases of seasickness and dispensed 2,400 pills.

Intrepid (CVS-11)

It is not unusual for a son to take his father for a ride, or for an admiral to be flown aboard an aircraft carrier at sea. Both situations occurred simultaneously recently when Rear Admiral J. L. Abbot, Jr., landed aboard *In-*

trepid, his new flagship, in a jet trainer piloted by his son, Lt. J. L. Abbot III.

RAdm. Abbot, ComCarDiv-16, flew out CVS-11 to watch student training off the coast of Florida.

Lt. Abbot is a flight instructor in VT-4 at NAS Pensacola.

Normally an ASW carrier, *Intrepid*, under the command of Captain H. N. Moore, Jr., was operating out of Pensacola as a training carrier while USS *Lexington* (CVT-16) was undergoing overhaul in Boston.

Franklin D. Roosevelt (CVA-42)

CVA-42 recently steamed into the Mediterranean for the 18th time, surpassing her own record of most cruises by any carrier to that part of the world.

Commanded by Captain Harry S. Sellers, *Roosevelt* has spent almost half of her 24 years in commission on station in the Mediterranean.

The extended cruise represents two challenges to the Sixth Fleet carrier. *Roosevelt*'s primary mission is to act as a deterrent to aggression against western Europe. She has the secondary missions of creating goodwill throughout her operating area and protecting U.S. citizens and interests in the Mediterranean.

CVA-42 recently completed a year long, \$46 million overhaul period at the Norfolk Naval Shipyard.



THE LATEST model of the Corsair II, the A-7E, was introduced to the fleet when VA-147 landed aboard *America* recently.

The Staff Planners

By JOC Warren Grass

It is 10:30 p.m. on Yankee Station. At this time of night, when many think of steak and red wine by candlelight, *Hancock* pilots have just eaten breakfast. Now they wait in their squadron ready room for briefings on upcoming missions over Southeast Asia.

Some of the pilots reflect on the disparity between bacon and eggs and the solid land pleasures of dinner and good conversation with wife or girl friend. Their ages make the reflections personal. The older hands are in their middle and late Thirties, but most of the pilots are at least ten years younger.

The briefings begin. Spartan words from the briefers — targets, possible enemy position, tactics, weather — the facts break through the whirl of *Hancock's* air-conditioning.

Five decks above the pilots, there is another briefing room. Two days earlier, in the office adjacent to it, the targets for tonight's missions were confirmed.

The briefing room and office are assigned to Rear Admiral William R. McClendon and his Carrier Division Nine staff. The admiral has devoted his 28-year career to Naval Aviation. The past ten years have included duty on three carrier division staffs in the Pacific Fleet: first as an assistant operations officer (before deep U.S. involvement in Vietnam), then as chief of staff and now as commander. Both the latter assignments have been very much Vietnam-oriented. Adm. McClendon is not a stranger on



Yankee Station.

Three days ago, the admiral relieved one of his contemporaries and began a 25-day tour as Yankee Station commander. He alternately shares the responsibility for the "blue water Navy's" day-to-day operations there with two other carrier division commanders who are aboard two of the other three attack aircraft carriers in the western Pacific.

The man who worked up the targets for tonight's strike and coordinated them with Seventh Air Force at Tan Son Nhut AFB outside of Saigon is Commander Jack Ashmore. He is Adm. McClendon's air warfare officer. This is his third tour in Southeast Asian waters in as many years. On the last cruise, Cdr. Ashmore was on the fighting end, as an attack squadron commander. Now his experience and knowledge are being used differently.

As the pilots ready themselves for

their mission, the crewmen in the destroyer USS *Hollister* prepare for another 12 hours of following *Hancock* as plane guard.

Earlier in the day, the destroyer's radar had been out. The C.O. signalled the problem to the carrier and asked for two parts and a senior electronics technician to repair the equipment.

Commander Richard E. Kemble received the message at 3:30 p.m. The staff surface operations officer knew shortly that the parts were available aboard USS *Ranger* (CVA-61), operating about 30 miles away. He ordered a helicopter for a *Hancock* ET and dispatched it to *Ranger* for parts to take back to the destroyer.

Commander Kemble knew what the destroyer skipper faced. He had been on the other side of the fence for eight years as commanding officer and executive officer of ships — mostly destroyers. Now, as surface operations



COMCARDIV-NINE, RAdm. William R. McClendon, far left, scans the South China Sea. Seen through a porthole is Cdr. Richard Kemble, surface operations officer. At left, chief of staff, Capt. Joseph M. Tully, and staff operations officer, Capt. Max D. Barr, meet on the bridge. LCdr. Jerry Burkette, assistant intelligence officer, monitors reports, above left. Cdr. Jack Ashmere, air warfare officer, above, checks an A-4 Skyhawk's bomb load.

officer, it is his job to take good care of the supporting destroyers.

Commanders Ashmore and Kemble are two of the nine senior officers on the Carrier Division Nine staff. They, and the other 60 officers and enlisted men, came to the western Pacific with *Hancock* last August.

For almost nine months on and off Yankee Station, the staff has concentrated its efforts on problems in the widely diversified fields of communications, air intelligence, weapons, logistics, air and ground safety, and even mail delivery.

The attack carrier picture in the western Pacific now is such that of four in the area, two share residence on Yankee Station roughly a month at a time. They split a 24-hour daily flying schedule, with one taking the noon to midnight shift and the other operating midnight to noon.

The other two carriers operate in

any one of a number of areas from Okinawa to the Philippine Sea.

But *Hancock* is on the line now. The pilots who will fly tonight have "gone red," either by donning red goggles or sitting in red lighted rooms, to accustom their eyes to the darkness of the night sky into which they will shortly launch.

As the pilots make their final preparations for flight, LCdr. Jerry Burkette begins verifying operational reports from Yankee Station units. These are the first of several the staff's assistant air intelligence officer will monitor throughout the 12-hour flying cycle. They will be messages on upcoming operations, changes in tomorrow's missions or missions completed, and results of tonight's work.

Meanwhile, in the staff conference room, Captain Joseph M. Tully, Jr., sits down to read the messages that have stacked up since he last looked at his

message board two hours ago. In the stack is a report from *Hollister's* commanding officer saying his ship is ready for duty tonight. He adds a thanks for the assistance.

The Yankee Station commander's chief of staff knows from more than five years of command—a heavy attack jet squadron, an air wing, a fleet oiler and the attack carrier *USS Saratoga* (CVA-60)—the need for support and the feeling a commander gets when it comes quickly.

As Capt. Tully continues his last job of a 16-hour day, Captain Max D. Barr slides into a chair beside him, coffee, a cigarette and a sheaf of papers in his hands. Air early warning exercises, combined with other tests for the ship's air group and accompanying destroyers, are scheduled off Okinawa in little more than three weeks.

The exercises are primarily Capt. Barr's responsibility as staff operations officer. The captain has been involved in Naval Aviation 24 years. His experience includes command and executive officer billets in a jet attack squadron and commander of a carrier air group.

The two captains go over the exercise plan to smooth out rough edges. Adm. McClendon will hear the results at a mid-morning brief tomorrow. Forty minutes after they began, they wrap up the discussion and clear papers. They hear the first of the night's launch roar off the deck and are drawn to the staff's observation bridge four decks above the flight deck to watch those young men, who dreamed of steak and wine by candlelight earlier, fly their screaming jets into the darkness.

Another day ends for the Yankee Station planners.

USS Hancock (CVA-19) returns to Alameda, Calif., this month, after her fifth combat tour off Vietnam. Soon after her return, the 25-year-old carrier is scheduled for an extensive yard period in the San Francisco Naval Shipyard. This article, on the workings of a carrier division staff, was written shortly before she was relieved on Yankee Station.

Where Do All the Old Airplanes Go?

If you're a working airplane, this article is for YOU. Maybe you're getting old, or perhaps you're about to be superseded by a newer model. Where do you go from here, Mr. Airplane?

It depends on you, where you are, the men who keep you flying and the needs of the fleet.

If you cut an important figure in the annals of Naval Aviation history — like the *Truculent Turtle*, the *Pogo* or maybe even the Japanese *Emily*, last of its kind (a WW II heavy patrol bomber), your future is bright indeed. A background of this kind leads to restoration and exhibit at Pensacola, Norfolk, the National Air and Space Museum, or any one of the naval air stations around the country.

On the other hand, if you're one of the guys who trudged along day after day, year after year, just doing your job — you didn't happen to be the first or last or best or worst, but just the typical 4.0 airplane of your class — the future could be dim, although important, as far as the needs of the fleet.

You're the kind of airplane that really keeps working, long after retirement. Oh sure, you miss out on all the fresh paint and sprucing, but there's a satisfaction in knowing you can still do a job.

Take that *Crusader* at Norfolk, for example. Everyone said he was scrapped. Scrapped indeed! That old guy does more work in one day than some of the still flying planes do in a week. Yes, sir! That old *Crusader* is teaching fire-fighting crews how to combat aircraft fires and save lives and valuable equipment.

Then, of course, there's the *Truculent Turtle*, also at Norfolk. Some of the young bucks probably don't remember when the *Turtle* flew 11,236 miles from Perth, Australia, to Columbus, Ohio, to establish a record that held for 16 years. Yep, the *Turtle* is kept shined and displayed, out where everyone can see him.

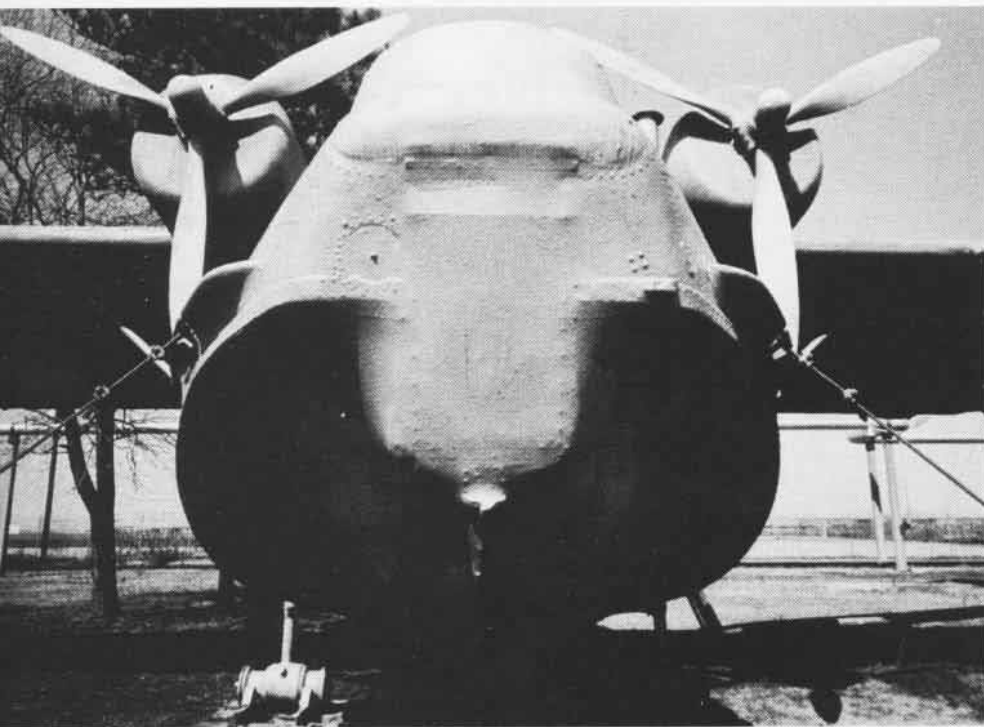
Then there're the boys down in Arizona in the Military Aircraft Storage and Disposition Center at Davis-Monthan Air Force Base. A lot of them are used to provide quick replacement parts to the fleet, and some that are just plumb wore out are melted down into aluminum ingots and the metal is re-used for just about anything you can name, including frying pans.

Some of the planes that went to Davis-Monthan while still in good operating shape have been turned over to other governments, like the A-1 *Sky-raid*ers. Those old workhorses were still doing a job when the A-4 jets came along and proved they could do it better.

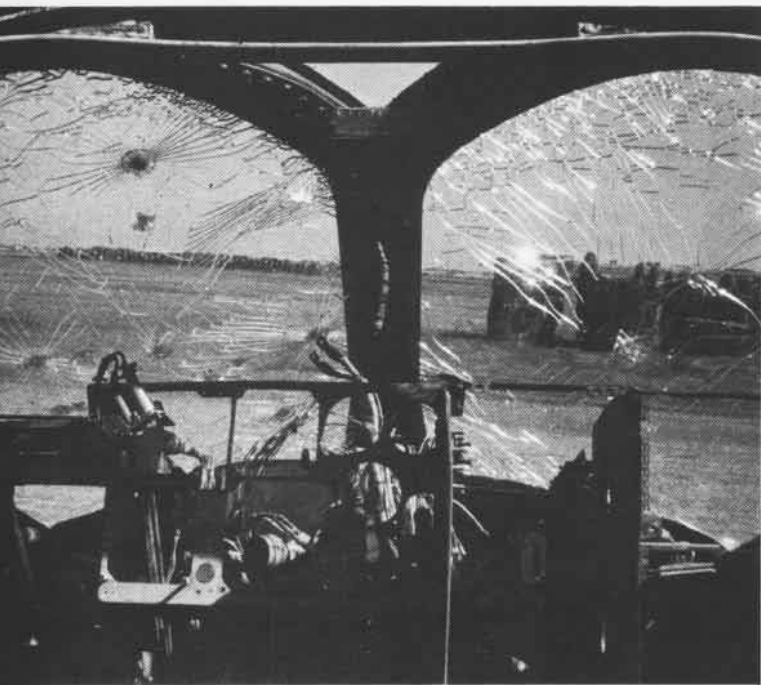
So wherever you go after your flying days are over, you'll still be doing a job for the Navy, either as an exhibit, a park attraction for young would-be Naval Aviators, a fire-fighting tool or replacement parts for the fleet.

THIS OLD BOY at left is a PBY Catalina, in storage at Norfolk. Pure aluminum ingots from melted-down planes are sold for use in household items like frying pans.

A Photographic Essay by
PHC B. M. Andersen,
PH1 Robert E. Woods
and PH2 Wayne Massie

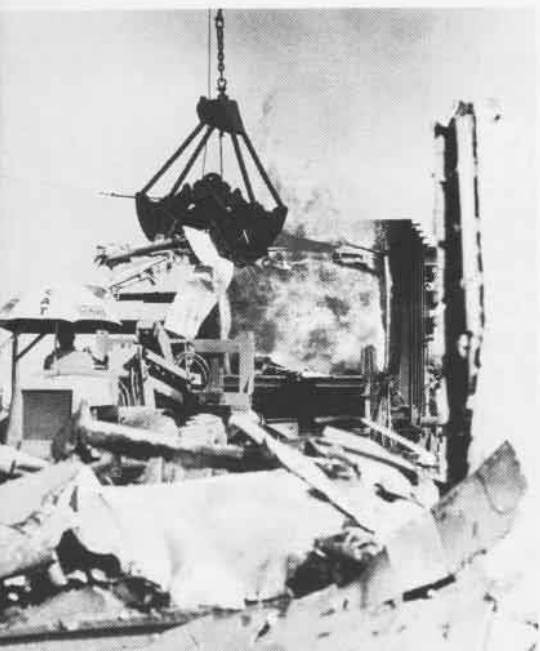




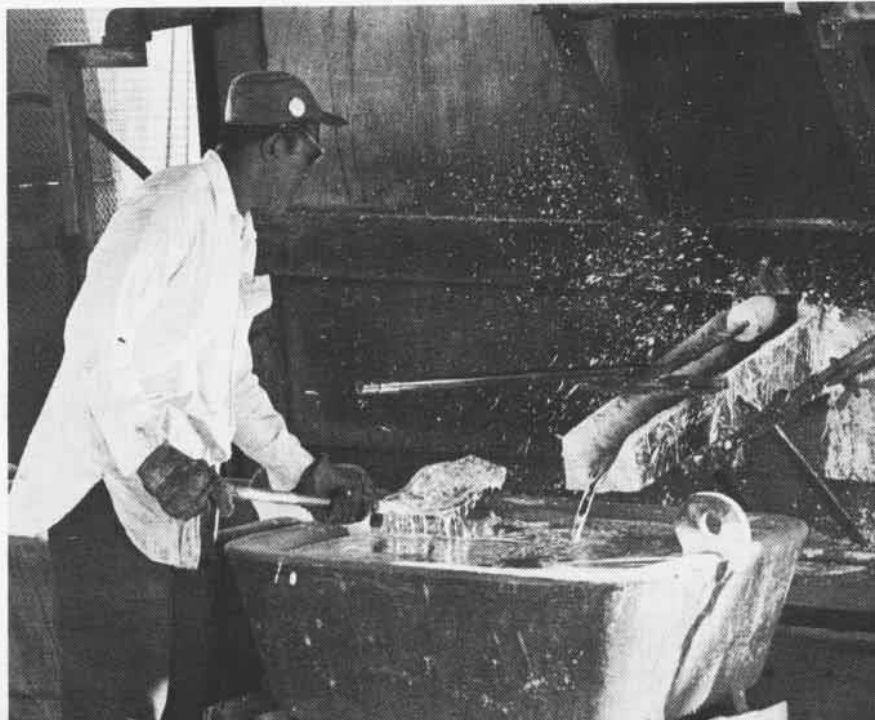


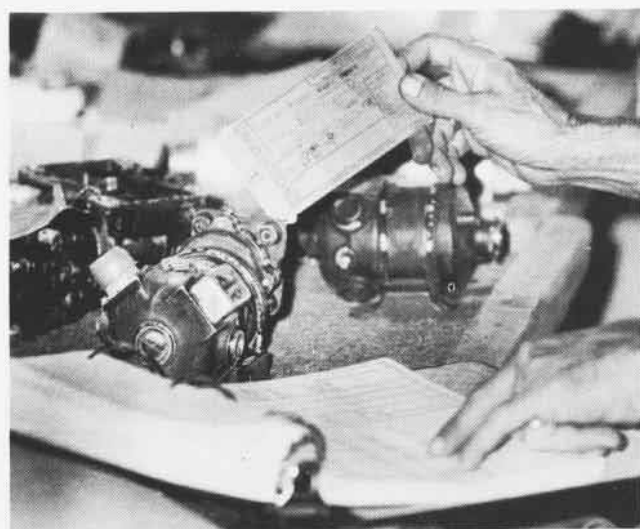
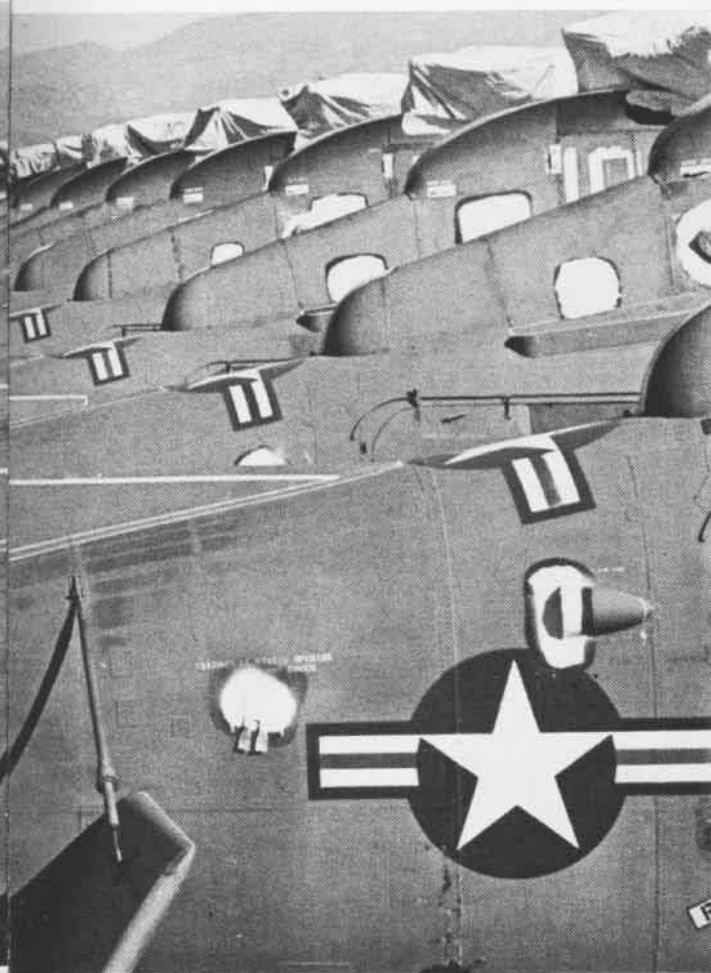
AN OLD CRUSADER at Norfolk does a full day's work, teaching crews the art of aircraft fire fighting. A-6 Intruder, already battle-damaged beyond salvage, will find a job at Norfolk. The XFY-1 Pogo, first VTOL (1954), stands tall and proud in the Virginia sun. The record-setting Truculent Turtle, a P2V Neptune, is at right.





WHATEVER THE JOB, it's important. Above, aircraft parts are shoveled into a smelter in Arizona for melting down into aluminum ingots for resale. Marine CH-37C helicopters cut a pretty pattern in the desert sun and parts from insurance-type planes are inspected for re-use in the fleet, upper right. Molten aluminum is scooped up, next is a line of Skyraiders, and a spare part is ready for shipment.





EDITOR'S CORNER

AT A TIME WHEN WE ARE AWED by such new commercial aircraft as the Boeing 747, it might be well to remember an early Navy venture into huge passenger planes. In September 1947, a great silver airplane glided to a perfect landing at NAS Moffett Field and taxied to a parking spot, dwarfing nearby Navy aircraft. The plane was the R60 *Constitution*, a four-engine, 168-passenger giant of her day, with a wartime capacity of 400 passengers in bucket seats. Her wingspan of 189 feet was only six feet less than today's 747. Though her speed was only half that attained by the newest jumbo jet, it was still a respectable 300 mph, significantly fast 23 years ago.

The *Constitution* had several interesting innovations, such as two passenger/cargo decks connected by two spiral staircases, man-sized crawlways within the wings to allow inflight access to the 3,500 hp. Pratt & Whitney engines and electric four-bladed reversible props.

AFCM James G. Shippey, now Leading Master Chief Petty Officer at Moffett, who was then second flight engineer on the R60, says the planes were "way ahead of their time." He recalls that during long cross-country flights, "we would set up a projector and screen and show inflight movies to the passengers." These may very well have been the first inflight movies — but, if not, it was the first time films were shown on a two-deck airliner.

The *Constitution* was not adopted by the airlines, and only two were built for the Navy, but these planes were operated by the Naval Air Transport Service until 1953, marking the way for operation of giant aircraft.

AMSC Glenn Semones, an instructor at NATTC Memphis, spends "a small portion" of his off duty time at a rewarding recreation. At least it has



HUGE LOCKHEED CONSTITUTION, operated by NATS from 1949 to 1953, flies over San Francisco Bay. The two-decked, 400 passenger capacity aircraft pioneered the way for giant airliners more than 20 years before the advent of the jumbo jets which are flying today.

been rewarding for Chief Semones. Since taking up target shooting only a little over a year ago, he has gathered a considerable collection of trophies and medals. Since that first match, he has rarely finished lower than second.



AMSC Glenn Semones displays a few of his trophies gained at pistol matches during marksmanship competitions the past year.

NAVY MEN AT WILLIAMS FIELD near McMurdo Station, Antarctica, had some fly-in visitors recently when two civilian attempts to fly to the South Pole transited their base. The *Flying Vikings*, Einer Pedersen and Thor Tjonveit, arrived in their twin-engined Cessna en route to South America via the pole. About the same time, Max Conrad reached Williams Field in his *White Penguin*, a Piper Aztec he piloted from New Zealand. After some maintenance delays, he continued on to the pole. Both aircraft landed on the airfield at the pole, the Norwegians returning to McMurdo the same day. Conrad had difficulties. On takeoff, the port prop struck snow and he made a forced landing two miles from the polar station. Though uninjured, Conrad, who planned to fly on to Punta Arenas, Chile, was delayed indefinitely due to the damage his plane received.

What does a Navy fighter pilot do for recreation? You name it and, as long as there is excitement involved, you will probably find one engaged in it. At NAS Miramar, there are scuba divers, mountain climbers, skiers, midget helicopter builders and now a world champion drag racer.

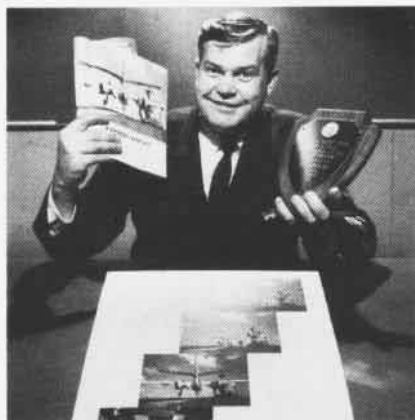
Lieutenant "Mike" McCloskey of VF-121, who has been drag racing since 1959, not only races the machines but designs and builds them as well. Winner of last year's World Champion title, Lt. McCloskey began 1970 by breaking the existing American Hot Rod Association's world record for F/Fuel dragsters and then captured the World Championship again at the Winter Nationals in Phoenix, Ariz.

His current racer, built around a 1949 Ford V-8, which he has modified to boost its original 100 hp. to nearly 400 hp., is also the lightest car in the field. Weighing a mere 760 pounds, the racer can cover a quarter-mile from a standing start in just over nine seconds, reaching speeds in excess of 145 mph.

Lt. McCloskey has set five national records and collected nearly 200 trophies while engaging in his "recreation."



LT. 'MIKE' McCLOSKEY of VF-121 stands by his two speedsters, one of which he built and piloted to a world championship in drag racing in Phoenix, Ariz., this past January.



PHCM WALTER M. COX displays his NANEWS Photographic Award and the winning picture, selected for use from the series in the foreground. Chief Cox used a 35mm motor-driven camera to record the event.



MARINE Air Base Squadron 13 decided an aviation squadron should have an airplane. Though it doesn't fly and can't bomb, Lt. Col. Revie, MABS-13 C.O., recently piloted the craft in a parade at Chu Lai, Vietnam.



MAX CONRAD's "White Penguin" arrives at Williams Field for a transpolar attempt during this past year's Antarctic summer.

THE NAME, WILLIAM B. ANDERSON III, may not be well known in Naval Aviation even though he now has charge of three famous carriers. Warrant Officer Anderson, who is an electrician and a 12-year veteran of the submarine service is responsible for the retired carriers, *Randolph*, *Essex* and *Boxer*, now deactivated at the former New York Naval Shipyard.

To assist him in ensuring general security and minor upkeep are five multi-talented petty officers and one seaman. This force guards against pilferage, fire and flooding as well as handling inevitable touch-up painting.



WO ANDERSON, O-in-C of a fleet of famous carriers, surveys the mothballed ships at the former New York Naval Shipyard.

TOPOGRAPHY

OVER OCEAN AREAS, WEATHER CONDITIONS ARE BASICALLY UNIFORM. OVER LAND, HOWEVER, CLIMATIC DIFFERENCES MAY BE VERY GREAT FOR SHORT DISTANCES.



IN THE PACIFIC NORTHWEST, FOR EXAMPLE, THE INFLUENCE OF TOPOGRAPHY ON CLIMATE IS CLEARLY SEEN. ON THE WINDWARD SIDE OF THE MOUNTAINS, CONSIDERABLE AMOUNTS OF RAINFALL ARE AVAILABLE WHILE, ON THE LEEWARD SIDE, THE CLIMATE IS DESERT-LIKE

THE GREATEST CLIMATIC INFLUENCES ARE OCEANS, HIGH ELEVATIONS AND MOUNTAIN RANGES, PARTICULARLY THOSE MOUNTAINS THAT STRADDLE THE PREVAILING WIND FLOW.



MOUNTAIN RANGES, IF SUFFICIENTLY HIGH, CAN CAUSE THE STALLING OF FRONTAL SYSTEMS OR EVEN CAUSE THEM TO DISSIPATE. PRESSURE CENTERS ARE OFTEN FORCED OFF THEIR TRACKS WHEN THEY ENCOUNTER MOUNTAINS.



ANOTHER EFFECT OF MOUNTAINS ON CLIMATE IS THE OCCURRENCE OF DAY AND NIGHT-TIME WINDS. DURING THE DAY, THE WINDS MAY FLOW UPSLOPE; AT NIGHT, THE DIRECTION IS REVERSED.



A MORE POWERFUL DOWNSLOPE MOUNTAIN WIND IS CALLED THE CHINOOK OR FOEHN WIND. COMMON TO THE ROCKY MOUNTAINS, THESE WINDS CAN STRIP THE SNOW OFF THE SIDE OF A MOUNTAIN IN A MATTER OF HOURS



Letters

A Sense of Sadness

As usual, the February 1970 issue of *Naval Aviation News* is superb.

I thought your readers might be interested to know that a certain sense of sadness must be threaded through No. 892 Squadron of the Royal Navy. *Omega* Squadron will probably be the last fixed-wing Fleet Air Arm squadron to be commissioned.

Omega is the last letter of the Greek alphabet, a sad but obviously fitting designation. Keep up the good work.

Kurt H. Miska
Public Affairs (Aircraft)
Grumman Aerospace Corp.
Bethpage, N. Y. 11714

Editor Error

Although we may have defeated them at Saratoga during our Revolution, the RN always seems to be one step ahead of us tailhook Yanks. When it comes to innovations aboard carriers, they have us beat by a country mile.

First they had the *Furious* and *Argus*

before we built the flight deck for the *Langley*; then steam cats, angled decks and mirror landing aids. And now a new way to position jets onto a catapult with at least two tie-down chains attached - incredible (see page 21, February 1970, *NA News*). If I'm not mistaken, the "director" is the squadron's plane captain who is signalling the pilot to extend his flaps during the post start systems check, and the pilot is looking out the opposite side of his cockpit!

M. E. Vail
Captain, USN

Natoma Bay Reunion

The association of the men of the *Natoma Bay* (CVE-62) is planning a reunion in Miami Beach August 21-23. A general invitation is extended to all CVE men.

Persons interested in attending should write to R. B. Wall at the following address:

1601 N. Johnson St.
Arlington, Va. 22201.

Robert B. Wall, Sec'y-Treas.
Natoma Bay Association

Kudo

My husband, Lt. Rick Millson, went from active duty with the *Blue Angels*, flying number four, or "slot" man, into the Naval Reserves on January 31. During the two years he spent with the Flight Demonstration Team, I saw many good articles on the *Blues* but none as fine as in your October issue. I know my husband would be pleased to have a copy. My compliments to everyone concerned with the article. Thank you.

Mrs. R. I. Millson
Pensacola Beach, Fla.

Ed. Note: And thank you Mrs. Millson! Copies of the *Blues* issue have been forwarded.

Dear Sir:

As an educational institution we would like to receive complimentary copies of *Naval Aviation News*.

Pettibone High School
Pettibone, North Dakota

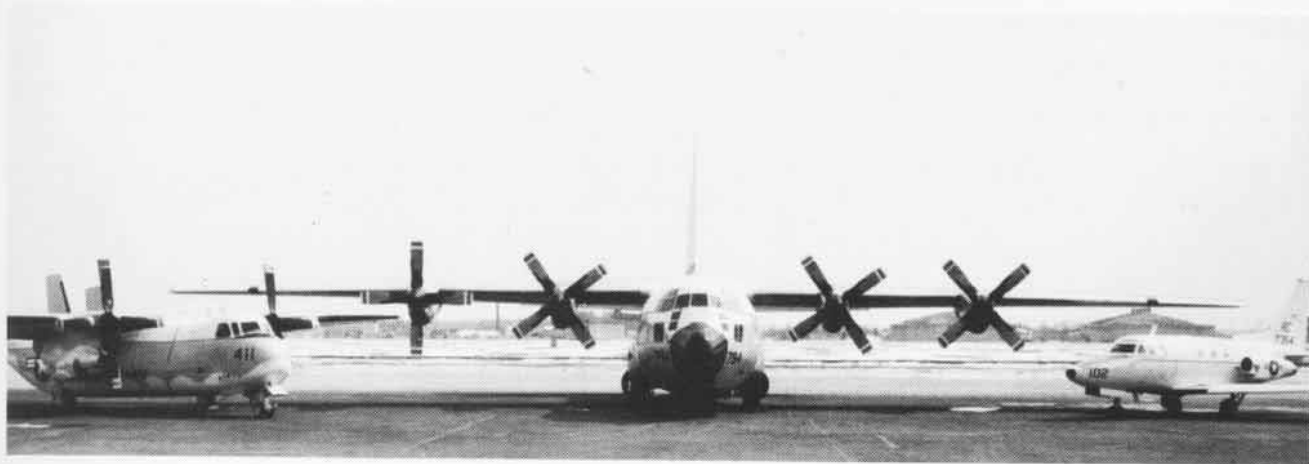
Gramps Sez:



Great Horned Toadies! With a name like Pettibone this fine institution is bound to be one of the outstanding schools in our country. Proof enough in th' fact they were aware of *NA News* bein' available to school libraries. Other educational institutions can follow the Pettibone example simply by writin' to the editors of this magazine, usin' the address on page 1.



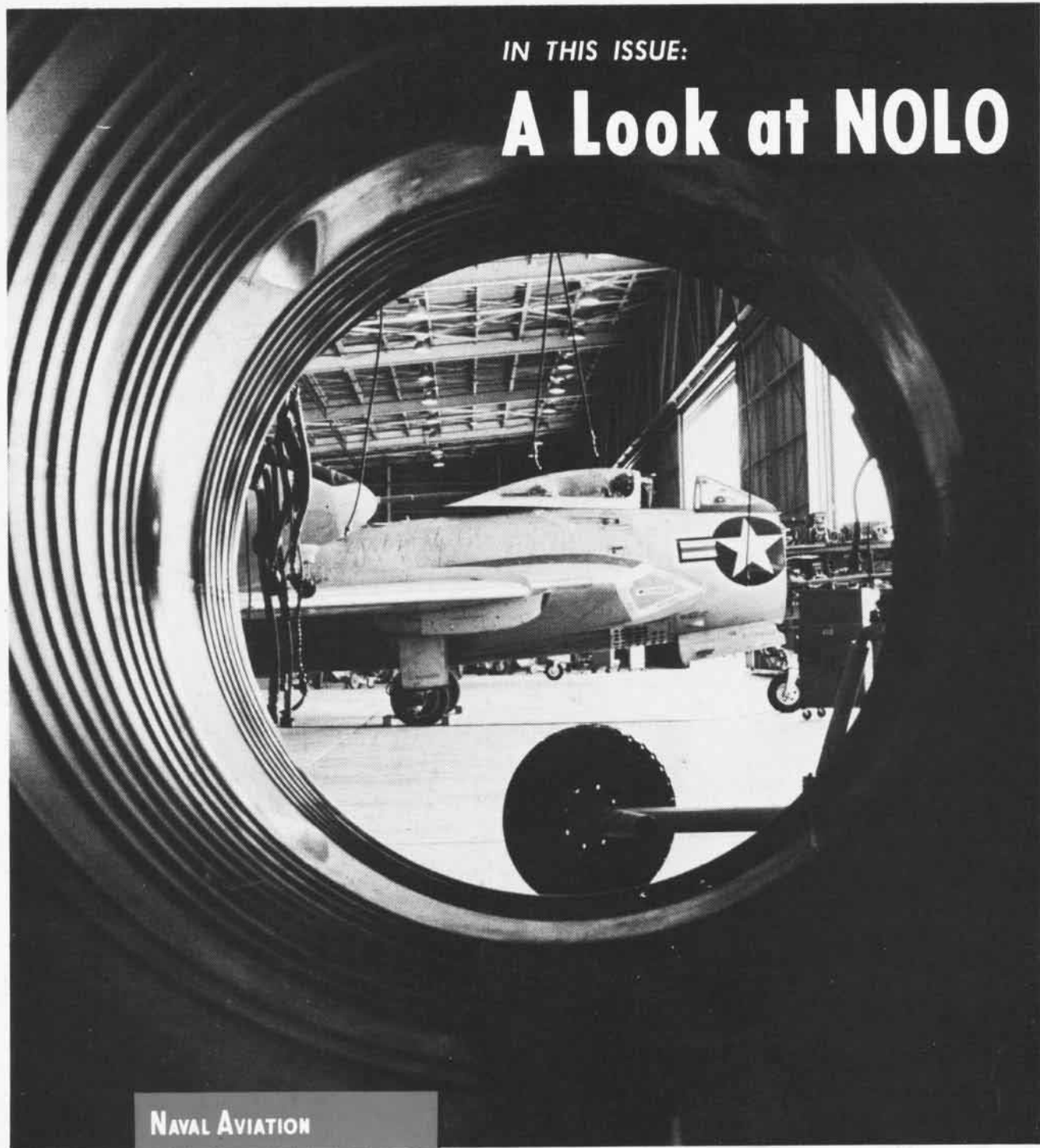
VRC-50, formerly VR-21 Det. Atsugi, was commissioned October 1, 1966. Flying the C-2A, C-130 and T-39 in support of fleet and western Pacific operations, VRC-50 delivers much needed men, material and mail. The Atsugi-based squadron is led by Commander J. R. Smith.



AIR-06B

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